AN EXAMINATION

OF

THE STRUCTURAL PRINCIPLES

OF

MR. HERBERT SPENCER'S PHILOSOPHY:

INTENDED AS A PROOF THAT

Theism is the only Theory of the Universe that can satisfy Reason.

BY THE

REV. W. D. GROUND,

CURATE OF NEWBURN, NEWCASTLE-ON-TYNE;
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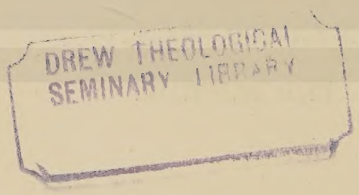

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PREFACE.

PERHAPS it is the fate of all great systems of Philosophy that they should be open to many different interpretations, according as they strike different readers, but it can hardly be questioned, I think, that Mr. Spencer's Philosophy is singularly of this character. Many claim him as a Materialist, but nothing can be plainer than that he repudiates Materialism with all his heart. With more justice perhaps, some claim him as the very chief of empirics, but his system seems to me to have little in common with any system of empiricism. It must be allowed that he is an Agnostic, but it is very much open to question whether Agnosticism is any necessary and structural part of his Philosophy, and whether it may not be a mere excrescence which only deforms and degrades a true and noble system. It is in this latter aspect that it appears to myself; and this volume is written for the purpose of shewing that, if the system be made one logical and consistent whole, it is congruous with nothing but Theism. I have also attempted to shew that the system, when thus made consistent with itself, affords a scientific demonstration of the truth of the Theistic hypothesis which is of a higher and more

convincing character than has been presented to any former age.

The endeavour has been made to strip the argument, as far as possible, of all technical terms,—to remember that the highest merit of style is simplicity,—and to write the whole work in such a fashion that to understand it in every part, and decide as to the validity of the reasoning, shall demand of no one nothing more than enlarged common sense. If a few philosophical terms have been necessarily employed they will, I think, be found to be hardly more than elementary conceptions, and such as can be mastered without much difficulty by any one of good intelligence.

My thanks are due to the Council of the Victoria Institute for permission to reprint a few pages in Chapters VIII., IX., X., and XI., which had previously formed parts of papers read before, and published by, the Institute.

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PART I.

GENERAL PRINCIPLES.

CHAPTER I.

INTRODUCTORY REMARKS.

TWENTY years have now elapsed since Mr. Herbert Spencer's "System of Philosophy" began to make its appearance, and by the confession of friends and foes alike it has taken one of the first places in the philosophical world. Written in a style of great beauty, reaching a high perfection in its arrangement, displaying much scientific learning, and a far greater scientific and philosophical grasp, above all, making a more daring attempt than any philosophy before, it just falls in with the fearless and untrammelled spirit of the leading men of the age, and provides for their thought the large channel it demands. Possibly this is one of the chief causes of its popularity. The age has been bursting its bonds; the new wine of science will not dwell in the old bottles of thought; a larger race has been seeking larger dwelling-places, and Mr. Spencer has been the teacher who has most of all satisfied that desire.

It may be we are not yet in a position to estimate aright the dimensions of the "System," and to forecast the rank posterity will assign to it. Before this can be done there must sit that court as of angels, which Ralph Waldo Emerson has reminded us is the only tribunal that can determine the value of any book. None but the great men of all time can decide what will be the ultimate verdict on a matter. Unquestionably there are those who hold Mr. Spencer's volumes to contain principles that will never pass away, but will form the enduring landmarks of philosophic thought. Others, again, deride his claims

to any special eminence, and sometimes speak of his system as if it were a philosophical romance. But both classes, the one by their possibly exaggerated notions of his power, and the other by their equally unjust depreciation, serve to prove that he and his system are notable factors in the thought of this generation, which must, in some way or other, be reckoned with. Meanwhile, his admirers may rest content with the knowledge that his reputation is more than European, and that it is likely rather to increase than grow less.

In one respect he has been singularly fortunate. Just at the moment he began his system, a new idea—one of the most startling ever given to the world—had been put forth, and that idea enlarged the bounds of human thought to a greater degree than the discovery of America enlarged the times of Elizabeth. It would be a psychological study of great interest to learn the exact part played by each of the two men who have most of all fashioned the doctrine of Evolution. One of them has lately gone to his rest, with a scientific reputation rivalled only by that of Newton. The other is, doubtless, Mr. Spencer. It may be that the bold outlines of his thought had been sketched for him, and that he contributed comparatively little to these. But it seems rather true that whilst Mr. Darwin, along with Wallace, Joule, Grove, and Helmholtz, dealt with special parts only of the vast conception, to Mr. Spencer alone belongs the honour of shaping all those parts into one commanding unity, and bringing every event of our stellar universe into the sweep of one all-comprehending Law. At any rate, Mr. Spencer and Mr. Darwin have worked faithfully side by side, independently of each other, yet materially helping each other,—the one shewing Evolution in physical nature, the other carrying it over the whole realm of mind and social activity,—and forming in their union one solid and homogeneous whole.

The importance which attaches to any great philosophy, and to Mr. Spencer's in particular, forbids that his system should be allowed to go unchallenged. Those who look

beneath the surface of a nation's life will probably be of opinion that a current philosophical system contributes more than any other single factor to the formation of the generation that accepts it. Necessarily it means the greatest thought held by that generation — the theory which it regards as the most complete explanation of the universe. It is the one idea which brings into its all-comprehending universality every other idea. Of necessity, then, it determines the bold lines of the thought of that generation; it makes the channel along which the bulk of its intellect will move; it fashions all its highest thinkers; it gives prominence and influence to those who agree with it; and, by a severe natural selection, it cuts off or condemns to obscurity those who dissent. In so far as it prevails it determines the atmosphere the nation will breathe, the mental and moral levels on which it will live. It supplies the great mass of the raw material of thought which others will elaborate into finished mental products. Art, Poetry, Science, Ethics, Politics, Religion, are profoundly affected by it; it enters into the deepest springs of character and conduct, and structurally modifies a nation's life. If it be lofty and profound, the great bulk of the nation's thought will become, under its inspiring influence, rich and deep, will wear the glow of health, and be instinct with unexpressed power; but if it be shallow and pretentious, it will be not less than an intellectual and moral curse. It can scarcely be necessary to bring forward the testimony of history in proof of these propositions. The enlargement and growth of science consequent on the philosophy of the universe propounded by Newton; the relative shallowness brought about by the empiricism of Locke, culminating in the materialism of Condillac and Diderot, leading to a fearful moral descent, which ended in the first French Revolution; the mental and moral majesty which marked the thought of Europe after Kant sent out his Kritik, and some similar phenomena which stand nearer to our own day, all serve to shew how powerfully and profoundly a nation's life is influenced by the philosophy which is in the ascendant.

Students of history, taking in large areas of time, may, indeed, see the nations swaying to and fro under the power of great philosophical systems, as corn is swayed hither and thither by the breeze. Its philosophy is the master-force which fashions a people. For this cause the greatest intellects of all time have always aspired to the philosophical throne. They have seen that "philosopher" is the highest title mortal can wear. Patriot, poet, artist, statesman, lawgiver, prophet, are all bound up in it.

But there is a special reason why Mr. Spencer's philosophy cannot be accepted without careful examination. For in addition to its vast range and universality, there is the further fact that it deals with—and, as some hold, overthrows—the foundations of Morals and of Religion, and seeks to conduct the race along a path which, in all human history, has never been trodden before. If it really does this, if it puts aside the old foundations of ethic principles, clearly it urges us to take a leap in the dark, which no nation or people has ever yet tried. That would be an experiment in morals, with no landmarks to guide us, on the widest and most enduring scale, the issues whereof, if disastrous, would be the most tremendous and appalling calamity that has ever happened to our race. But putting aside this as improbable, there is another aspect of Mr. Spencer's system, which, if that system be accepted even in its main outlines, will be found to effect a silent revolution in all our modes of thought. For if Evolution is to become a structural idea of the world's theory of things, if it is finally to be accepted as universally as the theory of gravitation—and this is what men of science proclaim—it cannot be doubted that it will structurally modify every thought we at present hold. It must decompose and crystallize into new shapes the entire bulk of our intellectual material. If it conquers it must conquer completely; it must and will be the mental sovereign of our world; all Science, Art, Poetry, Theology, Ethics, Politics, must be fashioned as it requires, or die a lingering but certain death; and by it

all human things must be made new. The task which will in that case lie before this generation, will be to shape its thought along the lines furnished by this theory; to build its whole intellectual structure in the way it prescribes. It must be, therefore, a work of the last importance to find out how much of the theory accords with the truth, and what it is that is logically necessitated thereby.

It seems to me, however, only just and right that the structural principles of Mr. Spencer's system should be examined, and their validity decided on, before dealing with any of his details. This is indeed a canon of criticism which I hold to be of universal application. The broad outlines of a writer's thought should first be examined, and, if they are found to be in accordance with truth, no slight defect in details ought to hide that great excellence; whereas, if, on the contrary, they are structurally untrue, that fatal blot ought to condemn the whole work, no matter how ingeniously the smaller matters may be dealt with. This is the principle contended for by Mr. Ruskin in "The Stones of Venice," and it seems to me it should apply to all art. Critics, it is to be feared, have but seldom acted upon it. Too often they have only been intent on securing a dialectical victory. Not a little of the argument presented against Mr. Spencer appears of this character; but I must hold that philosophers should set higher aims before them than mere logical triumph. A British philosopher, it seems to me, should aim to wear the stainless ermine of a British judge. He should be such a lover of truth, as well as so large and lofty in mould, as to be incapable of giving other than a just verdict on the facts presented; and he should live in such sympathetic fellowship with all who sit on mental thrones, as to realise that, if he yields to any unworthy bias, others will soon come after him who will set aside his judgments for those more in accordance with truth. He should aim to win that supreme excellence of a judge, expressed when men say, "His decisions have never been reversed." All after ages have honoured them as models of large and luminous wisdom.

Moreover, Mr. Spencer himself has set a worthy example. Singularly courteous and painstaking in his treatment of antagonists, even when assailed with no little acerbity, he has, in addition, lately put before us one of the highest and most refined codes of honour that has yet been propounded. In his latest work, the "Data of Ethics," he reminds us that, as life becomes highly evolved it passes from a state of warfare to a state of peace; and, from making adjustments which hinder the lives of others, it rises into a condition where the adjustments made no longer interfere with their welfare. In other words, that is the largest and most highly developed nature which most fully observes the law of love. This seems as beautiful, amidst the common rivalries of the world around us, as those sublime glimpses in the Jewish prophets of a state in which men neither hurt nor destroy, and it looks like a prophecy of such a time. It is in this spirit that this volume is written. Every adjustment made in it has been contrived so as to trench in the smallest possible degree, on the adjustments made by Mr. Spencer. Only he is too wise and great not to know that no system can be just, can observe his own canon, and can endure, which is not intellectually true. In so far as it is untrue it is manifestly hindering the proper adjustment of other lives. To that extent it is the common enemy of mankind. All, then, that will be done is to point out, as courteously as possible, where it seems to me to deviate from the truth. And a repeated perusal of Mr. Spencer's works has so impressed me with a sense of his love of truth as to produce the conviction that he will welcome any truth, even if it sets aside some of his cherished opinions.

CHAPTER II.

THE STRUCTURE OF THE SYSTEM.

First Principles.—Principles of Biology.—Principles of Psychology.

IT is Mr. Spencer's contention that he has unified all knowledge—that he has reduced every science to one single principle—and has thus comprehended in that one principle every event in the stellar universe that has ever occurred. This unity is absolutely essential to the maintenance of his system of philosophy; if he has succeeded in doing this, it must be accounted a most wonderful exploit: if he has not, his system is not a logical whole, and as a philosophy it falls to pieces. In this latter case, parts of it may cohere closely, and remain of great philosophical value, but it is then only a system in ruins, and cannot possibly be accepted by men of intelligence as an adequate explanation of all things.

In order to determine whether one logical principle does run through it from beginning to end, and whether it is one consistent and homogeneous whole, it will be necessary for us to travel over the outline of its entire mental structure. We can do this with considerable rapidity, although that outline in the philosophy itself stretches through not less than 4,500 pages.

The volumes whose structure we must examine are "First Principles," "Principles of Biology," "Principles of Psychology," "Principles of Sociology," and the "Data of Ethics." These form the stones of that mighty arch which is claimed to stretch in one unbroken line from star-dust to Shakspere.

"First Principles" commences with "the Unknowable." It is shewn that both Religion and Science contain some ultimate truth; that the ultimate religious ideas, and the ultimate scientific ideas, are alike unthinkable; that Creation, Self-existence, the Absolute, the Infinite, on the religious side, and Time, Space, Matter, Motion, Force, Personality, on the scientific side, utterly refuse to come as

clear and legitimate conceptions within the range of our intellects; that hence the universe discloses an omnipresent and omnipotent Power, which Power must remain Uncomprehended and Incomprehensible[a], and that in this admission of mutual weakness and limitation, Religion and Science may find a lasting reconciliation.

Thus ends the first part of "First Principles." Though not in strictness a part of Mr. Spencer's philosophy at all—being only the introduction to that system, and in no sense forming any portion of its structure—it has yet, from its apparent onslaught on all forms of religious belief, attracted more attention, and aroused more hostility, than all the rest of his writings put together. But it is, in itself, comparatively insignificant; probably it would have died without much notice but for the philosophy with which it is united, and although it seems a menace to religion, this is almost entirely on account of the terms employed, and if we set these aside, and take only the thought conveyed, the alarming propositions are seen to be mere truisms; they actually form a part of the Athanasian Creed, and are accepted by every section of Christendom.

He then deals with "The Knowable," which forms the realm proper to philosophy. Philosophy is defined as the unification of the known, of all the truths contributed by science; and it is shewn that the existence of subject and object, of self and not-self, has a deeper warrant than any other truth whatever. Those modes of the not-self, which we call Space, Time, Matter, Motion, Force, are then severally analysed, and are shewn to be resolvable into the simpler conception that Force persists. It is then shewn that our sense of the indestructibility of Matter, and the continuity of Motion, comes from the conception that Force must persist, and the methods of science are proved to take it for granted as axiomatic. Thus the "Persistence of Force" is proved to be the

[a] Mr. Spencer prefers the terms "Unknown" and "Unknowable," but the words above used more exactly and philosophically express his thought. This is shewn in the chapter in this volume on "The Unknowable."

ultimate truth which lies beneath every other truth we can reach, and the argument is solidly welded by shewing that not only is this truth given in consciousness, but it is impossible to imagine a consciousness so constituted as not to give it.

Properly speaking, the introduction ends here, and from this point onward to the end we have a right to demand an absolute logical unity. Our nineteenth-century world, as we know it, is now to be explained in terms of the persistence of force. From this *à priori* principle all things must be shewn to grow as strictly as Euclid grows out of the axioms and definitions. Of course the proofs will be scientific, and not mathematical, often inductive, as well as deductive; but there must occur in the whole line no gap which logic refuses to cross.

From the "Persistence of Force" there are obtained, as necessary corollaries, the Persistence of the Relations among Forces—giving us what others call the uniformity of law; what the Duke of Argyll calls "the Reign of Law," and "The Unity of Nature,"—and also the "Transformation or Equivalence of Forces," in other words, the "Correlation of the Physical Forces." Thus these great laws, manifestly the most important and the most structural of all the principles which affect our universe, are shewn to be necessary results of the persistence of force; and the whole net-work of law, which reaches above the starry system, and moulds a dew-drop, it is proved, might, in this way, have come into being. The solar system being accounted for on the nebular theory, it is shewn that from the solar force the chief astronomical, geological, and meteorological laws might have been produced. Thus we have obtained light, heat, electricity, magnetism, motion, vapours, clouds, rain, chemical changes, earthquakes, fissures, geological periods and strata, tides, the present crust of the earth, as well as that power which produces the attraction of gravitation. The mathematical formula which measures this attraction remains at present unaccounted for. Mr. Spencer contends that it is logically deducible from the properties of Matter, but

it is not easy to see what other element of the physical system might not in this way have been originated. Then, without any break whatever, *and as if it were a fair logical step*, we are called to pass on to vegetable and animal life; and it is shewn that neither can commence without the expenditure of pre-existing Force, in the shape of organization and heat, which looks very like "Persistence of Force." Then it is asserted that the "forces which we distinguish as mental come within the same generalization[b]." It is admitted that this is startling, but the contention is that there is no help for it, "the facts which necessitate it being abundant and conspicuous[b]." It is then shewn that our sensations arise from the impact of physical forces upon us, that they set in motion other forces, that our emotions and ideas thus result, that thought depends on the amount and quality of the blood sent to the brain, and on chemical changes, which are both qualitative and quantitative. How motion, heat, or light, can become a mode of consciousness is admitted to be an unfathomable mystery, yet not more so than the ultimate composition of Mind and Matter. Having now obtained Man, with all his energies and powers, of course the formation of a society follows without difficulty. To make the argument stronger, and to shew that the logical leap from physical to mental forces is justified, reasoning is presented to shew that all this is a necessary corollary from the Persistence of Force. To this we shall have occasion afterwards to refer.

It is next shewn that the motion generated by the solar force always follows the line of least resistance; and out of the working of this law he explains many hundreds of facts in Astronomy, Geology, Organic Growth, Mental Evolution, Political Economy. The conception of Evolution thus gained is then carried on through several chapters; and it is shewn that, on this principle, many thousands of known facts in all the sciences, in Art and History, can be accounted for. From the working of this law it is shewn that large "Homogeneous" masses would result;

[b] "First Principles," 3rd Edition, pp. 211, 212.

which, being very unstable, would have a great tendency to break up, or be evolved into the "Heterogeneous;" the results whereof would be the "Multiplication of Effects," the "Differentiation" and "Segregation" of "Individuals," and the general development of a highly individualised and specialised type. This "Individuality," it is shewn, would grow, in speciality and perfectness, until its final consummation or "Equilibration" was gained, after which the process of "Dissolution" would begin. This great law, the "Instability of the Homogeneous," is thus shewn to be capable of accounting for some of the greatest, deepest, most complex, and most remarkable of all the movements that have gone on in our race.

Here we reach the end of "First Principles." Mr. Spencer has stated his intention of re-casting its argument, so as to present the implications thereof with greater force, and also to shew how, out of the chemical laws which "First Principles" gives, there might have been produced the sixty-three elements of Chemistry, and how, from their inorganic combinations, the "Persistence of Force" leads us on to those colloids or jellies which seem closely allied to the composition of the lowest animal organisms, and to have almost as complex a structure as they. Rejecting the notion of spontaneous generation of life, as it has been lately propounded, he holds a much more subtle and philosophical theory, on which theory science has, as yet, by no means said her last word.

The "Principles of Biology" commences here, and traces the lowest form of organic matter up to the chief structures, shapes, and functions, of the animal and vegetable world.

It is shewn that all organic matter is made up of four elements; three highly unstable, and therefore capable of giving out vast force—one being the chief constituent of nitro-glycerine; and the fourth, the most stable compound known, and therefore capable of making a solid structure. This composition is, therefore, specially fitted for the evolution of life. Biology is then defined, and its divisions mapped out, and we pass on to note how

life has grown. It is then shewn how growth must follow from the action on the organism of the known chemical and other forces, and how development of structure and of function must likewise proceed at the same rate. Waste and repair are then explained on the same admitted principles; and adaptation, structural adjustment, and the fixity of organic types, are shewn to be producible by the same cause. An individual is thus fashioned, and then the mode of genesis, the facts of heredity, variation, classification, and distribution in space and time, are shewn to be similarly explicable. We then pass on to an able summary of some of the chief arguments in favour of the Evolution hypothesis. It is claimed to be more reasonable, more scientific, more satisfactory to the moral sense than its rival of special Creation, and it is then shewn by arguments derived from classification, embryology, morphology, distribution in space and time, to be an hypothesis, which is in striking accord with millions of known facts, contributed by all the sciences from every kingdom of nature. It thus appears in the light of a key which will exactly fit many myriads of wards in the great lock of the universe.

The truths thus arrived at as *à priori* deductions from the "Persistence of Force," are then shewn to be capable of accounting for the whole composition of every kind of plant, from lichens and algæ, to the oak and the cedar —the stem, leaves, petals, flowers, seed vessels—the composition of every kind of animal, from ascidians, worms, and centipedes, up to the highest vertebrates—the shapes, in plants, of the branches, flowers, leaves, cells. In animals and in plants alike, the shapes are shewn to obey one universal law, a corollary from the "Persistence of Force," and it is remarked that a formula which is capable of expressing a common character in things so unlike as a tree and a cow, a flower and a centipede, is, to say the least, very remarkable, and can hardly be accounted for, save on the supposition that it expresses the law of their formation. The same principle, or corollaries

from it, is then shewn to explain—the different colours of flowers, and the mode of their fertilization; the differences in leaves and stems; the pulp of sea-weed and the bark of an oak; the formation and shape of sap-vessels; the upward movement of the sap; and the length of plants' lives: and we then pass on to observe how similar results would be produced by the like principle in animals. By this means are explained the formation of respiratory organs, and bronchial tubes, and then of hairs, feathers, quills, scales. Incredible as it may appear, weighty evidence is adduced, bearing out the statement of Professor Huxley, that these last are homologous organs, and that one has grown out of the other! Still stranger is it to learn that the eye is but a modification of the common outer skin, commencing with a tactual appendage like a cat's whisker. In the humbler animals it is only a speck of pigment, covered by an epidermis a little convex, and slightly more transparent than the skin around it. Then it is differentiated into a stalk, like a crab's eye, which is proved to be a mere outer integument, inasmuch as it is cast away with the discarded shell. So it may be traced up, step by step, until the most finely finished eye is, in outline, accounted for. The ear is similarly explained.

It is then shewn that principles already reached will account for,—the various changes in the alimentary canal; the coats of the stomach; the gizzard of a bird so tough and leathery; the rumination of animals; the formation of liver, lungs, veins, arteries, cartilage, bone, nerve, muscle, tendons; and how in this way a physiological individual is made up. The work closes with a proof that the laws of multiplication of organisms may be educed from the same general principles.

Thus the "Persistence of Force" has been proved capable of accounting for the great bulk of the component parts, the shapes, structures, sizes, skeletons, outer and inner organs, seats of sensation, nervous force and tissues, of the entire vegetable and animal world. It will not of course be imagined that all these are explained in every

detail; the skeleton of thought must be made alive by a scientific imagination, and judged of by a scientific intellect; but when this is done the harmonies are so varied, remote, and numerous, as to make it very hard to believe the theory can be other than the truth. We now have the foundation for "Principles of Psychology."

"Principles of Psychology" commences by an examination of the broad features of the structure and function of the nervous system, which it is shewn is the truest criterion of the organism's position in creation. This is to serve as data. From thence the operations of the nervous energy are deduced; and these are spread out in their many ramifications like the veins in a leaf, or the branches of a tree. If now on examining consciousness we find there mental laws answering, in many minute particulars, as well as in all their broad features, to the outline given by the nervous energy, this will afford a scientific proof that the two—nervous action and Mind—at least synchronise. This proof is shewn in the next part. All the broad features of nervous action are shewn to have their correlatives in mental states, the one fitting the other as exactly as a die with a thousand delicate lines fits the impression it has made, or as a map of a country is like the country. Thus the argument becomes of great strength that Mind and nervous energy are so closely related, having so many points of synchronism, as to create the suspicion, if not even the belief, that they must have grown up together. Having been shewn to coincide in broad outline they are then further compared as to minute details: life and Mind are exhibited as a series of exact correspondences, in space, time, speciality, complexity, &c. By this time the argument has assumed the shape that ten thousand things in the one—nervous energy—exactly agree with ten thousand things in the other—Mind. There is thus begot a strong presumption that Mind as manifested in organizations, and nervous energy in the same organizations, are but two sides of the same thing. But now this explanation, if valid, must explain all the characteristics of the Intellectual system. If Mind and

nervous energy always synchronise, the development of nervous energy, being traced, will lead us to all intellectual cognitions. This is next entered upon. Life and Mind are shewn to correspond throughout the main intellectual operations, and the genesis of instinct, memory, and reason is made evident. The feelings and the emotions are similarly accounted for. The freedom of the will is altogether denied, and volition is resolved into a change from conflicting nervous currents into one unobstructed stream, the resultant of them all. So that out of the union and fusion of psychical states, themselves caused by sensations, all the intellectual powers might have been produced, and, in tracing the growth from stage to stage, the presumption grows very strong that they have been so produced. One law, then, will account for all the intellectual operations; that law is, that if two psychical states unite, there is always a tendency for them to unite again, which tendency is strengthened by each act of union. If, then, that law can be proved, from independent reasoning, to exist, the argument will be made of great strength. Such a law does exist. It was proved in "First Principles," that whenever there has been motion along any line there is a tendency to subsequent motion along that line. By this simple law the formation of a nervous system is explained; and it is shewn that by it the most compound nervous system might have been originated. This concludes the first volume—on Objective Psychology.

The second volume is on Subjective Psychology. It is an analysis of all the operations with which the intellect is conversant. The highest and most involved reasoning is carefully analysed, and separated into its component parts, and by this means it is proved through one lofty argument, which extends over 297 pages, that the highest intellectual operations are ultimately resolvable into a consciousness of difference. The calculations of an engineer as to the strength needed by a girder are shewn to have been capable of growing out of such a difference of light and shade as a mollusc might feel. It is tolerably clear

that the highest operations of the calculus might be explained by carrying on the same law. Thus the proudest summits on which man's intellect can move are proved to be of the same character, and made of the same materials, as the lowly sensations of an organism at the very dawn of existence. One mighty law embraces in its sweep an intelligence that can grasp the operations of universal nature, and the rudimentary sensations of the worm and the zoophyte. No doubt, up to this point, the look and tendency of Mr. Spencer's system have been distinctly materialistic, and it has seemed as if all Mind were going to be swallowed up by Matter, and appear henceforth as only an aspect of nervous energy. It has seemed as if Mind were only a side of Matter, and had no more existence, as a real entity, than "aquosity" has in water. So some materialists falsely represent it. But Mr. Spencer, in reasoning of a high order carried on through 191 pages, shews that the simple affirmation by consciousness of its own existence is a very much more certain truth than any truth arrived at by reasoning, and hence that the truth that Mind exists—Mind totally distinct from Matter, separated from it by the whole diameter of mental being—takes precedence of every other truth that the intellect of man can reach. No axiom of Euclid, no observation of the senses, no generalization of science is so certain as that Mind is a substantive entity, and that no collocation of Matter or Motion can ever account for it.

It is necessary that these two distinct propositions be clearly conceived and firmly held by all who wish to understand Mr. Spencer's Philosophy. These are, 1. That an overwhelming array of facts shews Mind and nervous energy to be two sides of the same thing. 2. That more certain than this generalization, and taking precedence of it, is the truth that Mind is an entity separated from nerve-matter by the whole diameter of intellectual being. Probably very few of those conversant with Mr. Spencer's Philosophy do grasp these two propositions. Some incline to the first, some only to the second. Materialists, Secularists, Atheists, Infidels, grasp only the first. It may

be that many Agnostics give a preponderating attention to this. On the other hand there are those who ignore it altogether, who think only of the Mind and give no heed to the nervous currents which form its physical basis. But both propositions seem to be true, and the whole truth can only be reached by their logical union.

Out of the Sensations, Feelings, Emotions, Cognitions, Energies, so produced, there will necessarily arise the sense of Sympathy, Sociality, Desire of Co-operation. From the play of these in various measures will arise the Æsthetic faculties. Here we come to the end of "Principles of Psychology" and are ready to trace the principles obtained out of the individual man on to the wider development and more varied activities which mark a Society.

CHAPTER III.

THE STRUCTURE OF THE SYSTEM (*continued*).

Principles of Sociology.—Data of Ethics.

THE scope of "Principles of Sociology" may be sufficiently defined by saying that it commences with Primitive Man as the unit of a Society; and traces him onward, through the various relations necessitated by an ever increasing environment, until, out of his Physical Emotional and Intellectual nature acted on by this environment, there grow up the various Sexual, Political, Ecclesiastical, Ceremonial, Regulative, Operative, and Industrial Stages in his development; the structural principles and institutions which have been the slow growth out of the unmeasured past; and the Language, Knowledge, Morals, Æsthetics, Philosophy, Science, which represent the vast fabric of his mental growth. It aims generally to trace the uncultivated savage community, through all its changing aspects, up to the large and stately civilization of the most advanced races of the world. Obviously this covers a very wide area, and Mr. Spencer has attempted to deal with only a small portion of this area.

The Work commences by the remark that existing savages are frequently, perhaps generally, a degradation from some more advanced type; and that hence Primitive Man cannot now be found. No doubt, to us, Primitive Ideas seem strange and incoherent, but to the primitive man they must have seemed just and reasonable. What then we have to do is to look at the chaos of savage beliefs and practices, as we now find them to exist, and endeavour to frame out of them a consistent and homogeneous theory of development; to trace indeed, as far as may be, the logical path followed by the savage in reaching the main body of his conclusions. This is the plan followed throughout the Work; and copious extracts are given, illustrating in savage life the

generalizations Mr. Spencer makes, and forming the data on which his inductions largely rest.

It is contended that many events would lead a savage to the notion of an invisible spirit. Changes in clouds, sun, moon, which come and go; the wind unseen, buffetting him, giving the notion of an invisible foe; his own shadow, which, to him, must have seemed another self; his reflection in water, evidently his exact double; an echo, clearly the mocking voice of some invisible being: these all serve as his facts which he must group and generalise, in order that he may have a notion accounting for them. No doubt he, like animals, could distinguish animate things from inanimate. The ideas of Sleep and Dreams foster this sense of a double self; in a dream one part of him goes away, and revisits distant scenes, and lives in times gone by: and his ideas of Swoon, Apoplexy, must all tend to the belief that the other self—the soul—goes away; and sometimes—as after a fainting fit—returns soon; sometimes remains longer absent—as in a trance; and sometimes—as in Death—never comes back at all. Thus the savage idea will be that Death is only a sleep; which is strengthened by the proved truth that many groups of savages put the spear, water, food, close beside the grave of the dead man, and not unfrequently renewed them at intervals. The notion might easily arise that if the body were destroyed the dead could not come back, and hence funeral mounds, and embalming, would spring up. Death being regarded as a long-suspended animation, it may be remarked, says Mr. Spencer, that believers in the Resurrection of the body, and the immortality of the soul, have only refined upon the savage belief to the extent of postponing, somewhat, the date of the resuscitation.

Hence will arise the notion of the existence of souls, ghosts, spirits, demons, regarded, now as the dead come back again, now as a semi-substantial duplicate, and now as aëriform and shadowy. The savage will think plants, animals, and all things have souls, from the fact of their having shadows. The ideas of another life will thus arise;

which will at first be thought not unlike the present in region, social arrangements, conduct, sentiments, ethical code; and from this there will be a divergence towards the ideas held by civilized man, in that such future life will be deemed less material, more unlike in occupation, with another kind of social order, with gratifications more remote, and demanding a higher standard of conduct.

That other world will at first be deemed close at hand; but as the savage journeys over land or sea,—and, of course, dreams at times of the place he has left—by degrees a sense of remoteness will spring up, and a journey to reach it will be thought requisite. A belief in two under-worlds will arise, answering respectively to the condition of the conquerors and the conquered; and as conquerors very generally inhabit a mountain stronghold they will be regarded as having their home in the sky. (The savage of course thinks the mountains touch the sky). From thence too the lightnings seem to issue, and these will be thought of as hurled by some deified chieftain. The conception becomes slowly more vague and general, and thus nears the civilized idea. As the savage can draw no distinction between the supernatural and the natural—as the conception of natural implies a larger generalization than he can fashion—he will set down all unexplained occurrences to the action of the spirits of the dead; and this, his first and long cherished belief, will hold him fast, to the long and stubborn rejection of every adverse notion. As he sees a man in a fit of epilepsy, delirium, madness, &c., he will think that the struggles are caused by another spirit entering and controlling him; and by degrees this conception will be refined into the notion of the semi-civilized that disease is from the devil. Death he will regard as so caused. Moreover there will spring up the notion that these spirits can enter into any one, and make him strong and wise; and hence there will arise the belief and practice of divination, sorcery, magic, exorcism, and miracle working.

A reverence for sacred places, the practice of prayer, the use of altars, the practice of fasting, of offerings of

blood to the dead, and a partaking of the sacrifice in order to acquire the greatness of the dead, will all by degrees arise from this notion; and it is contended that there is clear evidence for the belief that funeral rites developed into worship of the dead, and into religious worship generally. Thus, there springs up the general worship of ancestors. This is caused by a desire to please the ghost: the process of deification of dead ancestors is even now going on in India; and there are many indications that it has been universal. Hence will arise Idol worship and Fetish worship. The sacrifice to the dead will pass into a sacrifice to his dead body; and then on to an image of that body, which the savage will fancy is inhabited by the dead man's soul. And as many stones are like men's bones these will become the objects of reverence and worship. Or fetishism may arise from the notion that the fetish has been permeated by the breath of the dead man, and hence contains his spirit.

When the savage sees a maggot change into a fly, he will readily leap to the conclusion that any kind of change may take place, and hence that a soul may change into a snake. If then, after a death, a snake comes into the house, it will be regarded as the dead man come back; and hence will be worshipped. Other house-haunting creatures—such as the wasp, lizard, dove—may similarly become objects of reverence. And as entombment was frequently in a cave, where owls and bats congregate, these would be thought the spirits of the dead, and as such, honored. Children will often be named after animals, hence a race born of a savage named Tiger, will think a tiger was its ancestor. Thus there will spring up animal worship; but perhaps with a sense that the ancestor was half-man, half-brute. The brute god will be the first conception; half-brute half-human, next; and the anthropomorphic, last. In a similar way plant worship will arise; and as some plants yield intoxicating drinks, their effect will be held a possession by the god. Nature worship similarly arises. A race which came from a mountain stronghold, or over the

sea, will speak of mountain or sea as parent of the race; and, in time, the mountain or sea will be deemed an ancestor, and be worshipped. Children named Dawn, Stars, Sun, Moon, will in the same way lead their posterity to regard these as deities, and to worship them. In this way a host of deities will arise. A distinguished man feared during life will be deified after death; kings, sorcerers, teachers, superior races, will be held divine. It is contended that in this fashion the notion of every god, not excluding the God of the Hebrews, has arisen; and that hence the worship of ancestors is the root of every religion.

Thus the primitive theory of things is not that chaos of puerile follies which at first sight it appears to be. On the contrary it is an orderly and consistent whole. Around the great central error—of the existence of souls after death—there grows up, in logical development, the vast structure of a deep rooted and imposing religion. Manifestly the course we have traced is in accord with the main principles of Evolution. There has been first an increase in mass, then in coherence, heterogeneity, specialization, definiteness; Evolution therefore will account for the phenomena which religious organizations manifest.

After defining the scope of Sociology we pass on to the Second Part, which presents the Inductions of Sociology. It is here shewn that a society is an organism; a social body, a highly magnified representation of a human body. Like that body, it is marked by growth, structure, increasing heterogeneity; as both develop, the functions become increasingly integrated and specialised; and various systems of organs are produced. Thus there is in both the Sustaining system, which maintains the organism; the Distributing system, which carries nutriment from one part to another; the Regulating system, which prescribes to each function its limits. There are varied Social Types and Constitutions; the chief being the militant type, which is mainly despotic; the industrial type, which tends to freedom. As in the body,

too, various kinds and degrees of metamorphosis are perpetually going on. Evolution then, as before, will account for the phenomena manifested by a Society.

Part III. deals with the Domestic Relations.

The Maintenance of Species can be secured in two ways; by bringing many into existence, whereof a large proportion die; or by giving birth to only a few, which are better cared for and survive. The first prevails in lower organisms; the second in higher races. Evolution conducts to great and highly structured organizations, which need much care. As development proceeds, there is less sacrificed to the maintenance of species; there is a greater number of healthy descendants; there are fewer burdens; and a higher degree of compensating pleasure. Those domestic relations which are highest ethically are also highest in a biological and social aspect.

In the primitive relations of the sexes, men were accustomed to fight for the women; and the women sometimes freely went over to the conquerors. There was no marriage ceremony; divorce consisted in simply turning away; men were accustomed to lend their wives to a friend; there was no chastity in the young: incestuous relations were common. On the whole a progress towards higher social types is joined with progress to higher sexual types, but this relation is by no means constant. Exogamy or marriage without the tribe would be deemed more honorable than endogamy or marriage within the tribe. For a wife, who was a captive taken in war, would be a standing proof of the courage of the husband, and hence this mode would have higher social sanction. By degrees this was changed into making presents in return for the bride.

Promiscuous Sexual Relations evidently hinder social development and evolution; when it was seen that definite relations led to stronger children and races, these would more frequently obtain; and natural selection would enforce the requirement. A step above this would be Polyandry, which seems, in existing races, a survival from a primitive state, and is perhaps serviceable in some

habitats. Higher than this would be Polygyny, which has been almost universal,—the ancient Teutons standing alone amongst barbarians in having but one wife. This mode would evidently make relations more definite and continuous than the last. Highest of all stands Monogamy. Many reasons exist for holding this to be as ancient a mode as any; it must soon have grown up from a sense of property, as well as from the equalization of the numbers of the sexes. Evidently it is the most evolved form of the sexual relation, in that it makes the bond stronger, the children better cared for, and a home established, around which family affections can grow; and out of the love thus developed has eventually arisen a large part of music, poetry, fiction, the drama. There is a connection between the militant type of society and Polygyny, and between the industrial and Monogamy. In considering the family under its public aspect, it would seem to have grown up in its highest form from the patriarchal group; by degrees disintegrations have taken place, which Poor Laws and State Education are now aiding; and probably we have gone too far in this direction, and must retrace our steps. It is a very important truth that the salvation of a society depends on the observance of two principles: 1. *In the family*, that there should be the utmost care, love and generosity; 2. *In the state*, that nothing more than justice should be given to all, and natural selection and survival of the fittest should be allowed full play.

The Status of Women and Children is low indeed amongst savage tribes; it is improved as society progresses from the militant type to the industrial.

All this then is along the main lines of Evolution, and —assuming that process to continue—what is the Domestic Prospect lying before us? Probably inferior forms will never die out, but progress, in superior races, will suppress bigamy, adultery, and marriage for money. It will bring about the finest children, physically, morally, mentally. Woman's status will rise; she may get greater political power; but, save by becoming unsexed, she cannot become a mere worker like man. Probably children will

be somewhat more restrained than they are in some places at present; and a greater love to aged parents will be manifested.

Thus ends "Principles of Sociology." As will have appeared it has but two main structural elements. It attempts to trace every form of religious worship and ceremony out of the worship of the spirits of dead ancestors; and it shews how the Monogamic Sexual Relation has been developed out of inferior types. These may be important truths, but they seem to me very far inferior in dignity and breadth to those truths which form the cardinal principles of Mr. Spencer's other works. An account of the entire development of a society, from a state of barbarism up to the civilization of Athens in the time of Pericles, would have been of profound interest; but Mr. Spencer has been so much occupied in elaborating his ghost-theory, that these greater matters, although of real and permanent value to mankind, have been altogether overlooked.

The scope of the "Data of Ethics" may be defined by saying that it is a tracing of the Life and Powers given in the "Principles of Psychology" on to a further and higher development, through the whole realm of morality, until there comes into view the lofty unselfishness of a St. Paul, and the moral glory of the Lord Jesus Christ.

The Work begins by defining Ethics as the Science which deals with conduct in its largest and most universal aspects, and it is shewn that conduct is the adjustment of acts to ends. The highest ethical sanction then, will be given to that conduct which most perfectly adjusts the largest acts to attain the largest ends. The noblest and most perfect life will be that which exerts an influence over the widest area, endures the longest, is most fruitful in result, is charged with the largest inspirations, and moulds collective humanity of the greatest and most stately type. Let us mount on to this point. Better conduct—i.e. better adjustment of acts to ends—produces increase in length, breadth and force of life, and in fertility. The species better adjusted survives. Still, this

implies a state of warfare, where there is mutual loss and harm. It would be far better for each and for all that each one should surrender a little, and live in a society. Thus, combination and co-operation spring up, and each member strives to make adjustments which, while ministering to his own life, shall not hinder the life of his fellows. Thus a state of warfare merges, by the attainment of a larger individuality, into a state of peace[a]. Conduct gains ethical sanction in proportion as the activities become less and less militant, and more and more industrial. Instances are then tested, and it is found that in every case we call that conduct good, which tends to secure a larger maximum of life, and that bad, which tends to the reverse. This is further proved by examining all the ethical systems, and shewing that their test of good or bad is determined by the enquiry whether the conduct in question gives, *as its maximum result*, pleasure or pain.

1. There are the systems which make Perfection the aim. What is Perfection in a man? It is simply a full-orbed and complete life, perfectly fitted to adjust acts to ends. 2. Those which make virtue the aim. But how are acts decided to be virtuous? Simply by their conducing to a larger life. An act which, *in its maximum result*, diminished life could not be classed as virtuous. 3. Those which make the moral sense to be a guide divinely implanted. But how do such shew that the moral sense of a Turcoman, which applauds robbery, is not to be followed? Simply by proving the far-spreading evils —i.e. the large excess of pain—which must result from such conduct. Thus all the ethical systems, on being analysed, shew that, universally, that conduct is classed

[a] The possibility of this has been denied by some. Perhaps an anecdote told of the late Lord Derby will best prove it. On one occasion some gentlemen were urging upon him the formation of a railway, and as an inducement they shewed him that it would increase his income by £10,000 a-year. "But," said his lordship, "I have no wish for £10,000 a-year more." Obviously, then, his large surroundings made him disposed to make all his adjustments so that no one else should be hindered. This anecdote is said to be apocryphal. Then the action of a Q.C. who does not attend Quarter Sessions proves the same thing.

as good which yields good results,—which conduces to a larger measure of life,—and that is classed as bad which has the reverse effect.

This main proposition—that measure of goodness, measure of life, and measure of pleasure, go on in equal degrees,—is then proved along four main lines—Physical, Biological, Psychological, and Sociological; being the four great aspects which Evolution presents.

Physical. Evolution has previously been shewn to progress from an indefinite, incoherent, and homogeneous state to a definite, coherent, and heterogeneous state. Life becomes great and rich in proportion as it becomes coherent, definite, and heterogeneous. Now moral conduct is more coherent than immoral conduct. The moral man is consistent, the immoral man is dissolute. It is also more definite. The conscientious man is exact, and precise. It is also more heterogeneous. In proportion as life grows greater, and as a man fills out its requirements to the full, do his activities become more varied,—his conduct is more heterogeneous. So that moral conduct tends to a higher, more coherent, and more varied life than immoral conduct,—to a better maintenance of a moving equilibrium. It is more equable conduct—it can bear a higher strain, and do a larger amount of work—Physically then, higher morals and a larger life go hand in hand.

Biological. The moral man discharges every function in its right degree. Each one receives just as much energy, and does just as much work, as is suited to it. That is to say the moral man lives according to the norm that nature prescribes. Now, an excess of pleasure accompanies all natural acts, an excess of pain all unnatural acts. Hence when every function is naturally exercised, pleasure *in the main* results; when unnaturally, pain. Hence morality gives a surplus of pleasure,—a mass of pleasure with but a small amount of pain; immorality, a surplus of pain,—a mass of pain with only a slight set-off of pleasure. Moreover every pleasure raises the tide of life; every pain depresses it. There is no such tonic as happiness. From a biological point of view then,

morality conduces to a larger life than immorality, and brings with it a larger measure of pleasure, and a smaller measure of pain.

Psychological. It was proved in "Principles of Psychology," that cognition is higher in proportion as it is further removed from reflex action, and emotion is higher as it is further removed from sensation. Taking this as our criterion, it is plain that moral conduct is higher than immoral conduct, inasmuch as larger and grander cognitions, and deeper and richer emotions, come, in moral conduct, into play. As moral conduct is the outcome of more advanced life, guidance by the complex feeling of moral sentiment conduces more to welfare than guidance by the less complex feeling of immorality. Hence it follows that, as guides to conduct, the feelings have authorities proportionate to the degrees in which they are removed, by their complexity and their ideality, from simple sensations and appetites. There arises a certain presumption in favour of a motive which refers to a remote good, in comparison with one which refers to a proximate good. It is here Mr. Spencer contends that the "categorical moral imperative"—the sense of duty or oughtness given by conscience—is evolved. He says it is this presumption which has thus arisen in favour of a more distant good—the good of moral approbation—when placed in antagonism with a nearer good—the immediate gratification of sense. The first originators of this moral sense he holds to be parents, tribal and other law, and a belief in the anger of a divine being. Moral feelings are the last to arise, and they slowly disentangle themselves from other motives. It is then shewn that the moral cognitions are the highest and most remote. Justice is higher than generosity;—justice is the more complex and larger term, the structural principle of all society;—whereas generosity is the mere exuberance and play of the nature. How then does the sense of moral obligation arise? In this way. Accumulated race experiences have produced the conviction that guidance by feelings which refer to remote and general results, is usually more conducive to welfare

than guidance by feelings to be immediately gratified. Honesty, truthfulness, diligence, economy,—which promise a remote good,—have been found habitually to be better than the opposite qualities,—which promise a proximate good. This experience having been universal throughout a remote ancestry, those promptings which urge to remote good—i.e. to moral action—come universally to have authority. The monitor which has led right in ninety-nine cases out of a hundred establishes a character for right guidance. In this way he contends the moral sense is evolved. The compulsion—the imperative, in the moral sense—he holds with Mr. Bain has been evolved out of the punishments inflicted by law; and he contends that as conduct becomes truly moral, this sense of compulsion dies away, the moral obligation fades; and the sense of duty passes out of sight in the joy which right conduct gives. Righteousness becomes purely pleasurable, its mandates the laws of love, and the joy of obeying them the supreme happiness of the nature. Psychologically, then, measure of life, measure of goodness, and measure of pleasure, are proved to coincide.

Sociological. In this aspect Ethics lays down the rule of conduct, for men living in a society, so that the lives of each and all may be the greatest possible, alike in length and breadth. Moving then along these lines of large life, and higher goodness, it will be found that the maximum of pleasure is reached. For men living in a society obviously there must be no aggression upon one another, which one requirement justifies the whole moral law. But that is only a negative good, and it soon passes on to co-operation, each one helping the other. If now, many unite in one task,—as in hunting,—it is plain that there can be mutual satisfaction only by securing that each one shall receive gain in proportion to the amount he contributes. Hence fulfilment of contract is necessary, and a rudimentary justice springs up. This contributes to the development and growth of the society. For if any industry is specially successful, it becomes attractive, more men engage in it, the industry grows,

and wealth is more abundant. On the contrary a trade yielding a meagre return languishes and dies away. Thus survival of the fittest leads to a higher good. The universal basis of co-operation is thus—the proportioning of benefits received to services rendered. Thus justice is made a structural principle of the society. The limit of evolution is not however reached until each one goes beyond the strict letter of justice, and renders unpaid services to others. By this means each member of the community, and the community at large, receive benefit. Thus, on the foundation of strong and large justice, there grow up the practice and principle of wise and rich beneficence. Out of savages who join their forces to attack animals in the chase there is evolved, by this means, a high civilization which builds hospitals, provides for the needy, and cares tenderly for the whole family of man.

The development thus reached has manifestly shewn that measures of life, of goodness, and of happiness, have moved on in equal ratio. Being thus proved desirable it is clear such development will still continue. Many unpaid services must be and will be rendered to others. Parents give their strength, care, property to their children. In default of this the line dies out, and a wiser and better race comes on the scene. Clearly also the interests of the individual are subserved in proportion as aggressions cease, and as breaches of contract do not occur. The unwritten law of honour thus conduces more to welfare than law enforced by a tribunal. Moreover where many in a community are weak, the whole community is poorer; where many are unintelligent, the community reaps no benefit from enterprise, and all things are dearer; where many are untruthful, or immoral, shiftiness and breaches of contract are frequent, and everyone is made to suffer. Hence there is a distinct interest in each one to seek the improvement of all, physically, intellectually and morally. Strong robust frames, high intellectual energy, deep moral principle, and resolute and powerful will, give a community the rosy glow of health, and send it along the high road of prosperity.

Moreover each one gains by shewing, in addition to practical beneficence, a warm and loving heart. All conduct themselves with more than usual amiability to a person who hourly discloses a lovable nature. Such a one is in effect surrounded by a world of better people than one who is less morally attractive. Thus love begets love. A rich and great soul can put somewhat of its richness into others, and thus the measure of their lives is increased. Moreover a sympathetic and loving nature has a greater capacity for pleasure. Mere self-gratifications quickly bring satiety. Purely personal enjoyments yield a higher gratification to those who minister to the enjoyment of others than to those who do not. Notably is this the case in old age, and when the sense of joy is growing dull: parents grow young, and live over again, in their children. From this benevolent sympathy pleasure comes, and all pleasure raises the tide of life. We have now reached a point at which the whole universe wears a smiling aspect; and the rosy glow of comfort and prosperity which marked it is being changed into the higher moral beauty of unstinted benevolence. It is as if a statue, which represented earthly success, had been altered by the sculptor's cunning hand so that the lines of the face began to wear the higher majesty of sympathetic joy. As we trace the process we shall see the moral beauty deepening until at last we have a picture of the Man of Sorrows, the thorn-crowned Christ, as the Ideal and Final Image of our race.

Pleasure arising from benevolent sympathy is especially rich and high in the Æsthetic realm. An unsympathetic nature can have little or no pleasure in poetry, fiction or art. Can men who delight in dog fights appreciate Beethoven's *Adelaida*, or will a gang of convicts be moved by *In Memoriam?* Yet life grows wider than the community or the nation. Sympathies stretch across the seas, and there is a benevolent interest in the prosperity of all. This is stimulated by the perception that in proportion as each country develops its resources and grows richer, the whole world, and each individual nation are

benefitted: the human race is bound by close ties of interest and sympathy into one great brotherhood, and all the members thereof grow stronger and better by the increased welfare of the whole. Thus a life of largest and richest sympathies is the largest, morally best, and happiest life. But the development must still go on, for the pleasures of beneficent sympathy will become so keen and high, and will be seen by all so to be, that they will be recognised as the highest pleasures; competition will set in to attain them; there will be a mutual surrender to each one of his fair share of such delights; and the joy of making others happy,—felt to be the purest cup of bliss mortals can taste,—will be the final pursuit in which all the world will join.

Thus out of savages joining in a hunt there is at length evolved a highly civilized community, where all, especially the weak, are tenderly cared for, where beneficence is a mighty joy, where sympathetic pleasure is the highest known, where self-denial and suffering to make others happy are eagerly competed for, where in a word men have grown into the image of the Christ.

This then completes the System. We have now before us a reasonably complete outline of the structure of Mr. Spencer's intellectual edifice. And for myself as I grasp the whole idea in the unity of one conception, I seem to become conscious of a vastness of design which it seems to me could have been fashioned by none other than a Divine Hand;—it has an intellectual majesty rivalling the framework of the heavens;—and if it be not, in the main, the expression of their Originator's thought, I am forced to regard it as one of the most wonderful and unaccountable books that ever came from the mind of man. Say that it mainly expresses the truth, we have a sufficient explanation; but the assertion that all these massive, remote, complicated, varied, coincidences, which we have now traced, could occur in a theory which is untrue from beginning to end, is a statement which

must be accepted by other intellects than mine. But we have now to enter on a detailed examination. In the course of that examination we shall I think find that, whilst the main outline remains, it is seen to be a logical structure only on the supposition that it is the Design of Infinite Wisdom, Righteousness and Love.

CHAPTER IV.

THE CHIEF CLASSES OF REPLIES YET MADE TO MR. SPENCER.

AS Mr. Spencer's system is very voluminous, and moreover covers a vast area—indeed in a sense the whole area—of thought, it will readily be understood that the replies made to it are similarly extensive. What it has originated in its exposition or defence, and what has been presented in antagonism, form together a considerable literature. I cannot pretend to have read everything that has been written on both sides, and have been forced to content myself with an examination of those arguments only which have, from their weight and cogency, attracted chief attention. As the scope of this volume is only the structural principles of Mr. Spencer's system, it would lie beside its object to deal with matters of detail. Moreover it is desirable, in order to give full and undivided attention to the one chief aim, to avoid, as far as possible, all matters of irrelevant controversy. In reading any of Mr. Spencer's antagonists, after Mr. Spencer, I think I am sensible of a vast diminution in philosophic breadth, grasp, precision, massiveness; and I seem to have left the realm of mental manhood—of unshackled and fearless Philosophy—for the region of children. Mr. Spencer lives in the atmosphere which surrounds the meetings of the British Association; too many of his antagonists seem to me to be moulded in the image, and instinct with the thoughts of mediæval ecclesiasticism. I am not insensible to the force of the arguments urged by men like Dr. Martineau and Professor St. George Mivart, but I am not able to regard them as, in any sense, conclusive. Nearly all Dr. Martineau's attack on "Modern Materialism," is, it seems to me, quite consistent with what is at any rate a possible view of Mr. Spencer's system. It is conceivable that he never had Mr. Spencer in his mind at all,—and

that would be the most reasonable supposition,—only that he once quotes him as an authority. But I cannot allow that he has met the real force of the Spencerian position. The following passage, to select one out of several, cannot I think, by any just principles of criticism, be held to cover Mr. Spencer's region :—

"Large as the atomist's assumptions are, they do not go one jot beyond the requirements of his case. He has to deduce an orderly and determinate universe, such as we find around us, and to exclude chaotic systems where no equilibrium is established. In order to do this he must pick out the special conditions for producing this particular kosmos and no other, and must provide against the turning up of any out of a host of equally possible worlds. In other words he must, in spite of his contempt for final causes, himself proceed upon a preconceived world plan, and guide his own intellect as, step by step, he fits it to the universe, by the very process which he declares to be absent from the universe itself. If all atoms were round and smooth, he thinks no such stable order of things as we observe could ever arise; so he rejects these forms in favour of others. By a series of such rejections he gathers around him at last the select assortment of conditions which will work out right. The selection is made, however, not on grounds of *à priori* necessity, but with an eye to the required result[a]."

Now when it is borne in mind that Mr. Spencer's System is an Evolution of the universe, Laws and atoms included, *out of the one à priori principle of the "Persistence of Force,"* when it is remembered that every atom and every organism is rigorously deduced from that one principle,—is shewn to result from it as certainly as Geometry results out of the axioms and definitions,—then it seems to me clear, either that Dr. Martineau does not mean to refer to Mr. Spencer at all—which is the most probable supposition,—or else that he has entirely misapprehended Mr. Spencer's system. The very essence of that system —that which differentiates it—is that it is the deduction

[a] Modern Materialism. "Contemporary Review," 1876, pp. 344, 5.

of the world as we know it out of first principles. "Give me Force and its Persistence," says Mr. Spencer, "and I will build up your universe even to the highest intellectual range." That is the position which must be met, and I submit Dr. Martineau has not met it. If in the above quotation he really means Mr. Spencer's system he only caricatures it; and the last sentence seems to me in that case untrue as to fact, and best met by a categorical denial. Throughout Dr. Martineau proceeds on much the same lines. He attacks only the grosser forms of Materialism; his artillery has neither the weight, range, nor penetrating power for assailing Mr. Spencer's fortresses.

There is another class of arguments against Mr. Spencer's system which seems to me of a much more formidable character. These are they which shew that the universe, as we know it, is penetrated in every part by marks of Design; and that very much of what he brings forward can only be explained on the supposition of an overruling Intelligence. Mind, they declare, is associated with all phenomena; every movement of matter—in molecules or in masses—is according to unvarying Law, and that Law is simply the expression of the Mind and Will of the Being from whom all things proceeded. This line of argument either accepts the Evolution hypothesis, in whole or in part, or, whilst leaving Evolution an open question, contends that, in any case, the world as it is could not have been produced without a guiding Intelligence. Thus it is aimed not so much against Evolution, as against Agnosticism and Materialism; and it seems to me that along these lines the truth must somewhere be lying. Dr. Martineau has many statements which tend in this direction, but he has never, I think, presented the argument in a solid logical fashion. The gifted author of "The Supernatural in Nature," has presented reasoning more massive and scientific, and his works cannot be spoken of save in terms of admiration[b]. Still his arguments seem rather

[b] "The Supernatural in Nature," and "The Mystery of Miracles," by Rev. I. W. Reynolds, M.A., Prebendary of St. Paul's. (Kegan Paul and Co.)

adapted to strengthen faith in the Supernatural of those who already hold it, than to prove, by logical demonstration, that the Supernatural exists. The same objection applies to an able little work by the Rev. W. I. Hall, entitled "Sceptical Fallacies[c]." Both these works may be admirable for those already convinced, but I think I could point to not a few unproved assumptions in them—assumptions which I feel sure a Materialistic Agnostic would not think of allowing. By far the most able exposition of this argument, in my judgment, is to be found in a little work by my friend Professor Griffith, entitled "Faith: the Life-root of Science, Philosophy, Ethics and Religion[d]," in which he shews, in a masterly fashion, that the *à priori* is a structural element of all Science, Philosophy and Ethics, and hence that any catastrophe which overthrows Religion will involve Science in the same downfall. This appears to me a master-stroke of Christian statesmanship. It welds into one solid and homogeneous whole every department of truth; it shews that the existence of Mind is just as necessary to give validity to Science and Philosophy as to Religion; and thus it fixes all three on the same unmoveable foundation. By this means all who desire to uphold truth are banded together into one compact phalanx; the whole of the grand inheritance of the past is shewn to be equally sacred; all true men of Science are forced into the same camp as religious men; and all infidels, Materialistic Agnostics, and in fine all who deny that Mind is the originating cause of all things, are shewn to be nothing but intellectual barbarians, introducers of disorder and chaos, enemies to everything that is great and venerable, enemies to the whole human race. Professor Griffith's refined courtesy does not press the argument to this extent, but that is what his reasoning logically involves. He thus binds up, practically, the future of that deep interpretation of the universe out of which Religion grows with

[c] "Some Sceptical Fallacies Examined," by Rev. W. I. Hall, M.A., Rector of St. Clement, Eastcheap. (Rivingtons.)

[d] "Faith: the Life-root of Science, Philosophy, Ethics and Religion," by H. Griffith, F.G.S., Barnet. (Elliot Stock.)

that like interpretation of the physical universe which we call Science. This seems to me a truth of the eternal order, a truth which can never grow old, and as vast in its proportions, and as exactly suited to the needs of our age as Butler's great argument was adapted to the age in which he lived. Professor Huxley lamented a while ago that there existed no Butler amongst theologians to hammer into cohesion the scientific ranks. I think his lament must now cease, and I doubt not that Professor Griffith's little book either in itself, or in what it originates, —for it is most suggestive, and leads to deeper truths than it expresses—will ultimately sway the whole scientific world, and bring over all recusants into sympathy with a refined and stately Theism.

Before however this class of arguments can have complete and absolute validity, it seems to me one important link must be firmly forged. To common people like ourselves it may seem that the existence of Mind is as clear as daylight, and we feel about as sure that mind exists in Shakspere's plays, as we do of our own personal identity. But as Mr. Spencer claims to have shewn that this Mind grew up out of the sensations of an ascidian; and the reasoning by which he proves this has secured him a more than European reputation, and the respect of powerful philosophers of all schools of thought, and hence it cannot wisely or justly be waived away as absurd—as at present his argumentative structure on this point stands unshattered, it seems open to Materialistic Agnostics to assert (and back up with a good show of reasoning) that Mind itself is, in its last analysis, nothing but the working of material molecules—the motion, or something like it, of the particles of the brain. I have myself engaged in controversy with an able and acute man of science, who asserted that Mind was to Matter nothing more than "saccharеity" to sugar or "aquosity" to water. Professor Huxley has been credited with something similar, but his words, when fairly examined, mean I think nothing of the kind; and as he utterly repudiates Materialism, I hold it just to accept his disclaimer. Pro-

fessor Tyndall seemed to go nearer to it when he put forward, as a sufficient definition of a soul, "a poetical rendering of a phenomenon which refuses the yoke of ordinary mechanical laws[e]." These words however may, I think, also bear a non-materialistic interpretation. The Professor will hardly care to deny that a poetical rendering—a poetic thought—has a veritable entity,—someting objectively real—as its basis; and if he denies that the thoughts of a poet which are too deep for tears, are expressions of real and substantive existences,—expressions of a refined and noble mind,—well, he will only shew that he knows nothing of poetry; and if he derides them, as I feel sure he would not, a true poet might with just as much reason turn round on him, and deride the notion that a man of science, by looking at a plate, can tell what metals are in the sun. The soul may be a poem—God's great poem—it may be the poetic rendering of an Existence which eludes every scientific method. And as Professor Tyndall also has stated that he is a Materialist only in moments of unbelief—when the vision of the soul is clouded—he may be set aside. But Mr. Spencer's Philosophy is also claimed on behalf of this materialistic interpretation, and behind its high fortresses very many shelter themselves. It is therefore of the first importance to prove, by careful and unbiassed selections from many parts of Mr. Spencer's writings, that his whole system has the existence of Mind—of Mind separated from Matter by the whole diameter of being—as its one necessary and structural element. This truth, firmly established, necessarily cuts away all Materialistic Agnostics from Mr. Spencer's system; a vast and impassable chasm is shewn to exist between him and them; his system is left standing, shorn of its Agnosticism, its Materialism, and filled, I hope, with something of a spiritual glory; his work as a philosopher is even made greater than before; whilst the host of willing infidels, who sheltered behind him, are left to their own intrinsic

[e] Tyndall, Address at the Midland Institute, Birmingham, reported in "Times," Oct. 2, 1877.

insignificance. The gentle Brutus asked in touching words,—

> "O, that we then could come by Cæsar's spirit,
> And not dismember Cæsar[f]."

I confess to a reverence for Mr. Spencer like that which Brutus felt for Cæsar, and I have striven to "come by" the spirit of Agnosticism in his works, and leave the main body of his Philosophy standing. But this truth established, gives, it seems to me, an absolute validity to this whole class of arguments which assumes the existence of Mind; it supplies the needed foundation for Professor Griffith's reasoning, and makes it, I hold, an absolute demonstration. And when once Mind is impregnably fixed in the framework of the universe an invulnerable argument for Theism can soon be reached.

In dealing with the Evolution hypothesis, several—Dr. Martineau and others—had asserted that Evolution was consistent with an overruling Mind, that Evolution only traced the way that Mind took in the work of Creation. But they only *asserted* it, and did not prove it. They threw it out as a theory, they did nothing to shew how closely it fitted the actual facts of the case. And as Mr. Spencer's system shewed that the highest movements of Mind were identical with mechanical principles,—as mere mechanism at the base rose into the creative genius of a Shakspere at the apex,—it was not enough to *assert* that this was the path the Creative Intelligence followed: but there must be such a prolonged and patient examination of Mr. Spencer's whole system, as to make out all its leading principles; and then to shew that these not only consist with the idea of Design, but that a Design, magnificent in breadth and grandeur, is as irresistibly suggested by the aspect of the universe, as he paints it, as it is suggested by an oratorio of Handel, or the Sistine Chapel of Michael Angelo. This then has been my task in this part of the argument. Others had thrown out a theory, mine has been such a patient application of this theory to the evidence adduced as I think logically

[f] "Julius Cæsar," Act ii. Scene 1.

to compel its acceptance. It will, I think, be found that every one of the main principles of the Evolution hypothesis is shewn to be but the expression of a great moral law; and as the *tout ensemble* of these laws comes into clear outline before us, there rises up a vision of the Face of the God in Whom Christians believe.

For this reason the Evolution hypothesis seems the best support for the Theistic belief yet afforded us. It is chiefly on *à priori* grounds that I incline to accept it.

With respect to Mr. Spencer's assertion that God is Unknown and Unknowable, I have found no adverse arguments to which I feel able to attach any weight whatever. Professor Birks in "Modern Physical Fatalism[g]" deals with this subject,—it is in the region of the Absolute and the Infinite,—but in order to break the force of Mr. Spencer's reasoning he is compelled to go dead against the great names and massive reasoning of Kant and Hamilton. One who can calmly set himself against Kant, Hamilton, and Spencer is either a giant greater than any one of the three, or else seriously deficient in a sense of intellectual proportion. The only name Professor Birks can adduce is the relatively worthless authority of John Stuart Mill. Moreover, his arguments would, if accepted, lead, it seems to me, to the conclusion that man is the intellectual equal of the Power from whom all things came! But I think the reasoning I have presented on this head will shew that Mr. Spencer's whole assertion only means that God is Uncomprehended and Incomprehensible; and, if my argument proves this, it seems to me that the Agnosticism which has grown out of this one statement is shewn to be nothing more than a philosophical wind-bag,—with the greatest degree of tenuity of anything ever fashioned by the ingenuity of man.

Two other chief classes of replies are too important to be passed over in silence. By neither of these am I able

[g] "Modern Physical Fatalism," by Thomas Rawson Birks, M.A., Professor of Moral Philosophy, Cambridge. (Macmillan and Co.)

to regard Mr. Spencer's position as materially damaged, and, as it seems to me, the great bulk of scientific and philosophic warrant on these points is distinctly in his favour. These two classes are, 1. Arguments against the hypothesis of Evolution, and 2. Arguments which rest on the assumption that the chasm between the inorganic and organic can never be scientifically crossed.

1. The hypothesis of Evolution is beyond question the largest generalization that physical nature has yet suggested to the mind of man. It has for its foundations vast subordinate generalizations, which are contributed by every one of the sciences,—which are amongst the most certain of scientific truths,—and it is the one truth which comprehends and unifies the whole of these. It is the arch of thought, the stones whereof are whole Sciences, which binds into an orderly and consistent whole the entire fabric of the universe. "Creation is a unity," is what it tells us, and we are now enabled to trace the logical steps by which it has become a unity; be the Power from whence the universe proceeded what it may, we can now see along what lines it has moved, and how it has advanced from stage to stage in building up the Kosmos. The Architectonic element of Creation is now made visible; and we are enabled to see that the same Law which spread the floor of heaven with patines of bright gold, also called up the dull potencies of matter, the forces of organic life, and the intellect and moral qualities of Man. The Power that made the universe moved along one broad path of harmonious progression, took from the first the road which led eventually to the latest result. This is all that Evolution states—this represents it without one single break or gap, —and, thus stated, it seems to me not only philosophically probable, and with high scientific warrant, but also singularly in keeping with the majesty and glory of the Creator. Can the God who is a Unity have more than one way of working? St. Paul seems to say not[h].

No doubt there are grave discrepancies to be reconciled before *our statement of Evolution* will fit all the facts of

[h] Gal. iii. 3, 17, 20; Rom. iii. 29, 30; Eph. i. 10.

the case. A formula which can do this must be the structured growth of the ripest and largest thought of several generations. The conception is in vastness not unlike the Christian doctrine of the Trinity; and every scholar knows that that embodies the largest generalizations of divine truth which the noblest minds in three hundred years could fashion.

The only arguments against Evolution which I can regard as of weight are those which come from the collision between the Mathematico-Chemical statement of the theory, and the necessities of the Darwinian progression. Sir William Thomson, from the former point of view, alleges weighty argument that the earth cannot be more than ten millions of years old, whereas, on the Darwinian hypothesis, a much longer time would be demanded. The adjustment and unification of these conflicting theories will probably require a considerable time, and probably also much wider and more certain knowledge. In the former theory we seem to have very few facts upon which to rest, and the alteration of the degree of solidification under high temperatures—thought by many to be highly probable—would have the effect, so to speak, of reducing the angle of Sir William Thomson's converging lines of argument, so that then, instead of meeting at ten millions of years, they might sweep on to any extent that other sciences might seem to indicate.

This one objection, serious as it is, cannot, surely, weigh down the vast mass of arguments in favour of Evolution which are afforded by all the Sciences. Mr. Spencer's works alone disclose instances, reaching probably to millions, where the hypothesis exactly fits the facts disclosed by nature; and to think that an untrue theory could lead to so many true results, is to me as incredible as that false axioms could lead to a true Geometry.

To other objections against the theory I am able to attach little weight. The sudden appearance of the Trilobite, urged by many as a fatal gap in the chain,—the soft skin of the mole, so unlike its surroundings, regarded as a crucial instance by Sir Edmund Beckett,—the horn

of the rhinoceros, over which Dr. Elam waxes merry, as having grown from a pimple on the nose,—and others of this stamp, seem to me nothing more than *lacunæ* in the far-extending chain, and in no appreciable degree to set aside the evidence in its favour. Doubtless many breaks at present exist, but they are gradually being filled up. Links between different species of creation are often coming to light. Professor Huxley has shewn some thirty transitional forms between the horse of the Miocene period, and that of our own day; and if these were not produced by Evolution, the only alternative supposition left us seems to be that the Power which originated them gradually grew more dexterous, and attained a higher comeliness in its creations; which is surely inconsistent with any right or reverent conceptions of that Power.

The weight of scientific authority in favour of Evolution must also be taken into account. When it was first propounded it was derided as hardly more credible than the dream of a madman; by sheer force and cogency of argument it has won over, and converted into its enthusiastic proclaimers, the great majority of scientific men in all the countries of the globe. To think that these all can be mistaken is to class them as intellectually imbecile, although everyone knows they possess high intellectual capacity; to think them overcome by some strange bias is to assert a moral defect for which there is not a particle of evidence. Reasonable reverence for noble and far-reaching intellects compels, it seems to me, all rightly-fashioned minds at least to treat with respect the hypothesis they hold.

2. There is another class of arguments against Mr. Spencer. A break is said to exist in his system which Science can never cross — the chasm between the inorganic and the organic, the non-living and the living.

It is strange that this is regarded by some as equivalent to the chasm between Matter and Mind. Dr. Martineau even falls into what looks like this confusion of thought[1]. Yet it is certain that Professors Tyndall and Huxley, as

[1] See "Contemporary Review," 1876, pp. 338, 9.

well as Mr. Spencer, declare, in the very strongest terms, that the chasm between nerve-movements and the facts of consciousness can never be logically bridged; whilst all three express a confident belief that there has been no break in the operations of nature, but that the organic has been developed out of the inorganic; and hence that this chasm is one Science may justly expect to cross.

In order to understand and appreciate the force of the evidence which compels these three powerful thinkers to travel confessedly beyond the limits of strict scientific warrant, and to "discern in matter the promise and potency of every form of life," we must, I think, take into account their notion of Matter. It is far more correct to say that they regard Matter as endowed with life, than life as degraded to the mechanism of Matter. It is their strong scientific imaginations, enabling them to realise with vividness the wonderful operations which are going on in the inorganic world, which forbid their drawing a distinct line of demarcation between that and the organic world. To them the one seems almost as instinct with life as the other[k]. Let us try to conceive Matter as it appears to them. The pen with which this is written seems to us dull and inert, but to a strong scientific imagination it appears vibrating with life like the monarch of the forest; its tiniest atoms each contain an ordered stellar and planetary system; orb circles round orb many million times in a second; a human breath, the raising of a hand, a ray of sunlight, alters in an instant every one of its million million motions; these respond to influences more delicate than any of our instruments can appreciate in a way that the most tender human heart does not respond to the inner movements of the one it loves best. Now let us conceive of every particle of Matter as of this character; each simple substance with its own proper

[k] Many reverent natures have a similar feeling. Thus Rev. I. W. Reynolds:—"The whole world even where it seems dead is like a living creature praising God."—"Mystery of Miracles," p. 146. "The changes produced by heat on these substances (iron, titanium) are so great that in some experiments they seem endowed with vitality."—Ibid., p. 304.

movements; each compound atom, with its movements in an infinitely higher and more involved degree; all making thousands of adjustments in a second to respond to the changes of temperature going on around; and we shall I think begin to hold in deeper reverence this dull and senseless Matter, and to see that it is more nearly allied to life than at first sight appears.

When further we remember the instruments of precision and delicacy scientific men are often using; when—to use an illustration of Mr. Spencer's—the perturbations of a piece of magnetised steel enable an instructed intellect to read the progress of a cyclone in the sun; when further we remember that Science can now interpret many of the operations of organised life in terms of mechanical principles; we shall, I think, see that there is much warrant for the persuasion that the inorganic runs up into the organic; and that men of science, when they throw it out as a working theory, have just scientific warrant for so doing. Nobody pretends that the chasm has actually been bridged; no scientific man will assert it as a truth of science, until it has been experimentally verified; but as one of those provisional theories which Science has always employed in exploring new regions, it seems to me just as legitimate as any other.

Probably it is the high traditions of Science which compel her to cross the boundary. Her march has been one steady conquest, region after region has been explored, and many times she has performed what have been declared impossibilities. As yet she has, in the whole universe, found but one barrier; and that barrier her foremost sons most constantly acknowledge; that is a barrier which must exist in the nature of things. The human mind must be other than it is before we can logically cross from Matter to Mind. But there is no such necessary chasm between not-life and life. No canon of consciousness forbids that this gap should be crossed. And in asserting the feasibility of this feat, and in making the attempt to perform it, men of science seem to me to act in accord with all scientific traditions; and to be true fol-

lowers of those who have given to Science its commanding greatness. Even if the chasm really exists,—if the Creator's hand hath made a gap which He does not intend to be crossed,—men of science are perfectly justified in making the attempt, and by this fearless carrying out of their own principles, they will be, I think, more effectively serving Him than by sitting down at rest before an unconquered citadel. Let us remember Science is no thing of darkness; she springs from the light and loves the light; she hath the warrant of the Most High, and He wishes the secrets of His universe to be discovered. Science has no cause for shame; she moves in ordered progression around the infinite orb of thought which the Creator hath fashioned; she is His angel for finding out His wonders, and making evident His greatness; within the limits He assigns she has His authority, and where He has not manifestly barred her way, it is not competent to any meaner Power to declare she has no right to move. All maledictions against her on this head seem to me as worthless as Papal Bulls, and were I a man of science I should so regard them. Destitute of all moral and spiritual force, having no *raison d'être* in the nature of things, expressing not the large and lofty wisdom of the *Ewigkeit-geist*, but only the narrow fanaticism of the *Zeit-geist*, and of this, only its lower forms of expression, it has none of the elements which claim the reverence of earnest and high-souled men. But no doubt Science may be trusted to maintain her own traditions.

It is on this point, amongst others, that Professor St. George Mivart presents what he deems weighty objections. The most structureless organism, he holds, displays a complexity of make, which carries it very far away from the movements displayed by the most highly unstable colloids. This may be true in the present condition of Science. But as already stated, Mr. Spencer hopes one day to produce a whole volume, filling up the gap between the mechanical forces of "First Principles," and the soft colloids out of which organisms are fashioned. Now when we remember that Mr. Spencer has reduced to

a logical unity the sensations of an ascidian, and the creations of a Shakspere—and after nine years' careful study I can find no gap on which to rely—then it seems to me that another volume, by the same man, might easily disclose so many, and such varied points of union, as to make one plain logical arch from Mechanics, through Chemistry up to Organic Life. If Professor Mivart can break down Mr. Spencer's reasoning, and demolish "Principles of Psychology," he can of course try. Very few have dared to make the attempt; some much less formidable part of Mr. Spencer's outworks has generally been selected for attack; but until he has done this, he will not, I am sure, resort to the mere ridicule which many seem to regard as a sufficient weapon. When Reason has with trenchant sword cut clean through some sophism, a little gentle ridicule is useful as an acid to eat away the falsehood from men's minds, but to employ ridicule when Reason cannot shatter, is the act of an intellectual barbarian, and to that, I am sure, Professor St. George Mivart cannot descend. And until Mr. Spencer has shewn what arguments he can adduce, it seems to me no safe conclusion that the gap now existing may not be filled up.

Making then these concessions,—allowing at any rate for the sake of argument that Mr. Spencer has unified all Knowledge,—we concede everything that the most advanced Science can demand, everything that Science will be able for all time to demand. She can only explain the universe, she can not reduce her Knowledge to less than one generalization. Yielding to her thus much she must and will be content as long as time endures. If now, on this broad base of the unified Knowledge of the universe, we erect an argument for Theism, it seems to me it will stand absolutely and for ever impregnable. For if you build it on the base of the whole area of the Knowable, what possible foundation can ever be obtained on which to rest anything that can assail it? You have taken in all existing Knowledge, and you have made arrangements for instantly taking in all Knowledge as

soon as it exists. If then on this base a solid and coherent argument for Theism can be erected, it seems to me it must endure as changeless and as eternal as the Science on which it rests. It can hardly be thought that Science is altogether wrong in her reading of the universe; it cannot be that her main generalizations will ever be disproved; if all she at present knows is ever comprehended in a greater generalization, yet her present knowledge will form a part of that generalization, and it is beyond belief that this can very materially alter the aspect of things. We can now see the universe at any rate in miniature. And if it be shewn that the universe, as science discloses it, compels, or favours, or allows the Theistic belief, then, we obtain, I think, an argument for Theism of a higher and more convincing character than has ever been presented before. To shew this argument is the object of the present volume.

CHAPTER V.

THE EXISTENCE OF MIND AND MATTER: A STRUCTURAL PRINCIPLE OF MR. SPENCER'S SYSTEM.

MR. SPENCER has been charged by some with advocating something like Materialism. It is not easy to see how this notion can have arisen, inasmuch as Mr. Spencer repels it with some warmth, and moreover gives both that system and Idealism some powerful and even crushing blows. A more formidable and uncompromising opponent it is probable these systems never encountered. He joins himself distinctly and openly to the ranks of the Realist philosophers, and shews, it seems to me, many marks of having obtained much of the structure of his thought from Sir William Hamilton, whose limitations of the sphere of the human intellect he has, in effect, accepted. He states, over and over again, that the plain deliverance of consciousness as to the existence of the self and the not-self,—of subject and object,—is a deliverance transcending all others in certainty—he regards it as axiomatic;—and then after having proved it to be so by various short reasonings throughout the Philosophy, he devotes no less than a hundred and eighty pages in "Principles of Psychology" to a lengthened and involved argument in which he examines both Materialism and Idealism, and shews, as he believes, that they are utterly defective; and he finally settles down on the rock of Realism,—Realism transfigured and purified,—the co-existence of Mind and Matter declared to be a more certain truth than any other truth whatsoever. Hence the proof that Mr. Spencer is not a materialist rivals the famous reply of the Mayor of Chester to Queen Elizabeth—twenty reasons can be given, but one settles the matter.

On this point the following passages, amongst others, seem conclusive.

In "First Principles" the entire chapter on "The Data of Philosophy" is devoted to shewing that the verdict of consciousness as to the existence of the self and the not-self must be accepted. He thus sums up the whole :—

"What is this datum, or rather what are these data, which philosophy cannot do without? Clearly one primordial datum is involved in the foregoing statement. Already by implication we have assumed, and must for ever continue to assume, that congruities and incongruities exist, and are cognisable by us. We cannot avoid accepting as true the verdict of consciousness that some manifestations are like one another, and some are unlike one another[a]."

On the next page he says :—

"Consequently the assumption that a congruity or an incongruity exists when consciousness testifies to it, is an inevitable assumption. It is useless to say, as Sir W. Hamilton does, that consciousness is to be deemed trustworthy until proved mendacious. It cannot be proved mendacious in this, its fundamental act; since, as we see, proof involves a complete acceptance of this primordial act. Nay, more, the very thing supposed to be proved cannot be expressed without recognising this primordial act as valid; since unless we accept the verdict of consciousness that they differ, mendacity and trustworthiness become identical. Process and product of reasoning both disappear in the absence of this assumption[b]."

Thus we see he declares that the *process* asserted as valid by consciousness must be accepted. He next proceeds to shew that the *product* given by consciousness must also be accepted. He analyses all that is given by consciousness, and divides it into two great classes. He then says :—

"What is the division" (into these classes) "equivalent to? Obviously it corresponds to the division between *object* and *subject*. . This profoundest of distinctions among the manifestations of the Unknowable" (by Unknowable he means Matter and Mind) "we recognise by grouping them into self and not-self[c]."

[a] "First Principles," 2nd Edit. (from which all quotations are made), p. 140.
[b] Ibid., p. 141. [c] Ibid., p. 154.

A few lines further on he continues :—

"The persistent consciousness of likeness or difference is one which, by its very persistence, makes itself accepted; and one which transcends scepticism, since without it even doubt becomes impossible. And the primordial division of self from not-self is a cumulative result of persistent consciousnesses of likenesses and differences among manifestations [d]."

He closes the chapter by saying :—

"So much then for the data of Philosophy. In common with religion, philosophy assumes the primordial *implication* of consciousness, which, as we saw in the last part, has the deepest of all foundations. It assumes the validity of a certain primordial *process* of consciousness, without which inference is impossible, and without which there cannot even be either affirmation or denial. And it assumes the validity of a certain primordial *product* of consciousness, which, though it originates in an earlier process, is also, in one sense, a product of this process, since by this process it is tested and stamped as genuine [e]."

The chapter is again summed up in the "Principles of Psychology" in these words :—

"In the second part of 'First Principles,' when dealing with the Data of Philosophy, it was shewn that the co-existence of subject and object is a deliverance of consciousness which, taking precedence of all analytic examination, but subsequently verified by analytic examination, is a truth transcending all others in certainty [f]."

Probably those who charge Mr. Spencer with Materialism do so on account of his statement of the origin of our mental powers. It is not easy to see what other justification for the charge can be given. Professor Fairbairn in the "Contemporary Review" says "his ultimate metaphysical principles are empirical [g]." Now an empiricism is a system whose deepest roots are got out of experience —a system which rejects all *à priori* notions, and fashions

[d] "First Principles," p. 154. [e] Ibid., p. 157.

[f] "Principles of Psychology," 2nd Edit. (from which all quotations are made), vol. i. p. 209. [g] "Contemporary Review," July, 1881, p. 79.

the mental powers out of sensation alone. But the outline of Mr. Spencer's system given in Chapter II. surely makes it as clear as daylight that the one *à priori* notion, the "Persistence of Force," is the root from whence Mr. Spencer obtains his whole Philosophy; it is, from first to last, nothing but an elaboration of this one *à priori* principle, and hence to call it an empiricism is, in my judgment, to mistake its entire character. The axioms of Euclid are themselves, as Mr. Spencer shews, derived from this greater axiom of the "Persistence of Force," and to say that the whole of Geometry is an "empirical" structure is obviously to affirm what the consenting voice of mankind will at once deny. How a philosopher of Professor Fairbairn's calibre can make such a statement passes my comprehension.

Perhaps a justification will be sought from the way or road along which the Force, out of which our mental powers have been produced, has come. Mr. Spencer's reasoning no doubt goes to shew that these powers are not, as they seem to be, independent and original creations in us; but are rather the slow elaborations and co-ordinations of much humbler elements of Mind, which, carried on through unnumbered organisms, have acquired range, stability, precision; and have been handed down from one generation to another, until they have at length taken their places as elements not to be dislodged from our mental structure. Having this origin, some may contend that they have been fashioned out of experience, and are only the outgrowth of organic matter. But such a notion surely overlooks the one cardinal fact that — however ancient their origin in experience — there was, prior to them, and the cause of their being, this Force out of which they sprang. No doubt if Mr. Spencer holds this Force, from which all things came, to be Unintelligent, he is involved in a difficulty, and if he shall plainly declare this, I join with Professor Fairbairn; but at present it seems to me that he repudiates such a notion. And although he shews how our consciousness grew to what it now is, he tells us, as plainly as words can state, that our clear under-

standing of the mode in which any fact came into consciousness by no means robs that fact of its validity and its authority. If only it *be* a fact of consciousness—a primary deliverance of consciousness—we are compelled to take it on its own credentials, and we have no right to go behind it, and enquire by what authority it presumes to dictate to us. If it be a king *de facto* it must be obeyed, and any reference to its antecedents with the view of shewing its unfitness to rule is quite inadmissible. We may prove it to be of plebeian origin, but if it has become a structural element of our mental being, we have no choice but to permit its dominion over us. And he proves this in the best possible way, by shewing that we can never learn anything as to the way by which consciousness acquired its authority, without *assuming the validity of that authority over and over again.* The very reasoning by which we seek to demonstrate that it is untrustworthy has as its necessary foundation the assumption that it is trustworthy. Thus out of this deliverance of consciousness all our knowledge grows;—in what way that consciousness has been fashioned by no means affects the evidence it gives;—it is our only criterion of judgment, and if we try to reject it we are shut up to absolute nescience.

That such is Mr. Spencer's doctrine will, I think, have been made evident from the passages already quoted. But in addition he has himself anticipated and met the objection referred to. Although he had stated in "First Principles," as we saw, his loyal acceptance of the verdict of consciousness, yet when in "Principles of Psychology" he traced the growth of Mind from the humblest organism to Newton and Shakspere, he seems to have been apprehensive that his disclaimer of rebellion against consciousness would not be allowed due weight; and hence he set himself, in one piece of lofty and elaborate argument, to strip off every mask from every adverse theory, and to shew that the principles of Realism—of the existence of Mind and Matter—have in their favour an overwhelming weight of evidence.

He first examines the "Assumptions of Metaphysi-

cians," and shews that they assume Reason to be more trustworthy than Perception, yet if a justification for this assumption be demanded, none whatever can be given. He says :—

"The few metaphysicians, however, assume that the indirect process is supreme. Here, as a first step in the criticism of their conclusions, comes the question—Why is the indirect process supreme? If they can give a satisfactory answer, they establish a claim to proceed with their case. If not, the illusion is as likely to be with them as with their opponents.

"As likely, I have said—I should have said more likely. For here we have only to ask how their assumption is to be justified, to find that there is no possible way of justifying it. In the trial of Reason *versus* Perception, Reason claims superior trustworthiness. If this claim is challenged, Reason can do no more than employ some process of Reason to justify the claim. But such process of Reason itself needs to be proved valid if Reason in general needs to be proved valid. The validity of Reason is already taken for granted in any argument by which the superior trustworthiness of Reason is to be shewn. There can be nothing but a disguised *petitio principii*. If, of two witnesses brought into court to testify each on his own behalf, A. asserts one thing and B. the opposite thing, B. does not increase his credibility by any number of assertions which severally take for granted his credibility. Reason, then, is absolutely incapable of justifying its assumption. An assumption it is at the outset. An assumption it must remain to the last[h]."

He then turns to the words of metaphysicians and shews that "*language absolutely refuses to express the idealistic and sceptical hypotheses*[i]." He next examines the Reasonings of Berkeley and Hume, and shews that their arguments constantly take for granted the existence of that outside world which they deny; he then turns to a lengthy criticism of Kant's doctrine of the non-objectivity of Space, and shews that holding this lands him in contradictions; and he forces Hamilton, from his seeming acceptance of the same doctrine, into a like

[h] "Principles of Psychology," vol. ii. p. 317. [i] Ibid., p. 335.

position. The argument then passes on to shew the Negative justification of Realism—the proof that it has more evidence than the counter theory. This is shewn in that it has Priority on its side,—being the first and most natural belief,—whereas Non-Realism can only be reached by a long process of reasoning;—in its Simplicity,—being the immediate and non-complex deliverance of consciousness,—whilst Non-Realism is mediate and highly complicated;—in its Distinctness,—being clear and unmistakeable—whereas Non-Realism is vague and shadowy. Mr. Spencer thus sums up his reasoning on these points:—

"The Realistic conception is prior in order of time; and the Idealistic conception cannot be framed in its absence. The one is independent, the other dependent upon it; and the Idealist, affirming that which is dependent, denies that on which it depends. The consciousness in which Realism rests is reached by a single inferential act; while the consciousness professed to be reached by Idealism, is reached by a series of inferential acts. The Idealist proposes that, distrusting the single inferential act, we shall have faith in a series of them. The elements of the act of thought which yields Realism as its result, are extremely vivid and absolutely definite; while the elements of each one of the acts of thought said to yield Idealism, are extremely faint and very indefinite. We are asked to accept all these successive results given in faint, indefinite terms; and, on the strength of them, to reject the result given in vivid, definite terms.

"Stated thus nakedly, each of these tacit proposals is seen to involve the negation of a principle of rational thinking; and, even taken by itself, any one of them is obviously fatal to a doctrine which makes it. What, then, shall we think of the doctrine which requires us to negative all these three principles of rational thinking simultaneously? Yet this is what the metaphysical doctrine in general does[k]."

Having then, as he believes, shewn the doctrine of Non-Realism to be erroneous, he commences to "trace down the error to its simplest form and find its root." He then shews that this suicidal conflict between what

[k] "Principles of Psychology," 2nd Edit., vol. ii. pp. 383, 4.

it is contended are two deliverances of consciousness—Realism and Non-Realism—must arise from some unrecognised datum or postulate, the overlooking of which makes the conflict possible:—

"Manifestly, then, there must be some unrecognised datum, the overlooking of which makes possible this suicidal conflict. Each side of the argument involves the tacit assumption that intelligence proceeding after some manner or other can reach a valid conclusion; for on each side intelligence is used. If one of these deliverances of intelligence is wrong—if of two contradictory propositions uttered by it, both cannot be accepted; then does not any choice which is made imply some ultimate principle of thought that is conformed to more in the one case than in the other? And is it not clear that before there can be agreement on the general issue there must be agreement on the particular issue — What is this ultimate principle[l]?"

He then shews that in every case, by every school, something has to be assumed. "A certainty greater than that which any reasoning can yield, has to be recognised at the outset of all reasoning—be it the reasoning which proposes to shew that necessary truths are *à priori*, or be it the reasoning which proposes to shew that necessary truths are products of experience[m]." He then analyses pure Empiricism, and shews that as it refuses to admit any truth which is not established by evidence, it can do nothing more than make evident the congruity of its several parts, and "the consequence of this refusal to recognise some fundamental unproved truth, is that its fabric of conclusions is left without a base[n]." "Hence Philosophy, if it does not avowedly stand on some datum underlying reason, must acknowledge that it has nothing on which to stand—must confess itself to be baseless[o]."

This test or criterion by which to try every proposition —called by Mr. Spencer the "Universal Postulate"—is *that, the negation whereof is inconceivable.* Manifestly what we are forced to think,—what is taken for granted in every

[l] "Principles of Psychology," 2nd Edit., vol. ii. p. 385.
[m] Ibid., pp. 390-1. [n] Ibid., p. 391. [o] Ibid., p. 392.

act of reasoning,—must have a validity higher than which cannot be found. As then this assumption must be made in every act of reasoning it is shewn that that conclusion must be most certain which involves the postulate the fewest times. It is then shewn that the systems of Hypothetical Realism, Idealism, absolute Idealism, and Scepticism, cannot possibly be expressed in language without postulating Realism ;—or the co-existence of that subject and object which they set themselves to deny ; and that they apply this postulate many times, and in reasoning highly symbolic, whilst Realism applies it plainly, and only once. He then shews how the Realistic conception has been built up ; he traces the gradual differentiation of subject and object ; he shews how this differentiation went on until at length it became the one most complete and absolute antithesis to be found in our universe : and he leaves the whole Realistic position firmly established ; with its two opposite peaks of Mind and Matter, having a chasm between them deeper than any plummets of ours can fathom. The antagonism he makes between them will be more clearly shewn in the next chapter. He then purifies what he calls "Crude Realism" from its errors—shews that the mirror of consciousness reflects everything in the outside world, but that we have no reason for believing that our conception is exactly like the reality. He illustrates this by the image of a cube reflected in a cylindrical mirror, where the straight lines of the cube's sides are shewn as curved, and of its angles some seem obtuse, some acute, whilst its sides are variously shortened and elongated. Thus we reach the position attained in "First Principles," where the ultimate composition of Mind and Matter was shewn to be inscrutable. We are more sure than we can be of anything else that Mind and Matter both exist ; though what is their ultimate nature we have no means of deciding.

He thus closes this long argument :—

"And now the impossibility of all Anti-Realistic beliefs hav-

ing been shewn by direct analysis in the preceding chapters, and having been again shewn still more clearly by this geometrical analogy, the final remark to be made is that Anti-Realistic beliefs have never been held at all. They are but ghosts of beliefs, haunting those mazes of verbal propositions in which metaphysicians habitually lose themselves. Berkeley was not an Idealist: he never succeeded in expelling the consciousness of an external reality, as we saw when analyzing his language and his reasonings. Hume did not in the least doubt the existence of Matter or Mind: he simply persuaded himself that certain arguments ought to make him doubt. Nor was Kant a Kantist: that Space and Time are nothing more than subjective forms was with him, as it has been and will be with every other, a verbally-intelligible proposition, but a proposition which can never be rendered into thought, and can never therefore be believed [p]."

On the next page he says:—

"So that in fact, every Anti-Realistic system is not a fabric of ideas but a fabric of pseud-ideas. It is composed not of thoughts properly so called, but of the forms of thoughts without any contents. Whether it be or be not a true saying that Mythology is a disease of language, it may be said with truth that Metaphysics, in all its Anti-Realistic developments, is a disease of language. For its Anti-Realistic developments are results of those abnormal combinations of linguistic symbols in which they no longer perform their functions as expressing ideas [q]."

A few lines later he sums up:—

"Thus ends our examination of the Ultimate Question. We saw, when considering its nature, that Philosophy reaches its goal when it establishes universal congruity ('First Principles,' Part II. Ch. I.) Before stirring a step towards this goal, however, Philosophy has to assume the validity of certain primary dicta of consciousness; since before there can be thought there must be some data of thought. A general survey brought us to the conclusion that the relation of Subject and Object was a dictum of consciousness which must be thus provisionally accepted. Accepting it, the process of establishing congruities was pursued, until at length it brought us round to the original dictum; and we had then to consider whether this could be

[p] "Principles of Psychology," vol. ii. pp. 499, 500. [q] Ibid., p. 501.

absolutely justified. The foregoing chapters have led us not only to the result that it harmonizes with all other dicta of consciousness, but also to the result that every adverse proposition is absolutely and in every way incongruous with them[r]."

The necessity of shewing that the existence of subject and object—of Mind and Matter—is a structural principle of Mr. Spencer's Philosophy, must be my apology to the reader for presenting the matter at such a length. As we have seen, Mr. Spencer states it over and over again. He shews that it is a Datum which must be provisionally accepted before one step can be taken: he more than once refers to this as a principle with which every part of his Philosophy must harmonise: and then—when he has built up the whole structure, when every generalization and induction has been reached, and the whole area and growth of Mind have been examined,—he sets himself in one persistent argument to shew that the conception of Non-Realism is one which cannot be framed in language, which is only a pseud-idea, which is only a disease of language, which never has been held by anybody, which is only the ghost of a belief, which has no existence in our world at all. If all this argument does not simply annihilate the possibility that he is still a Non-Realist, —that he is one not holding the separate existence of subject and object, of Matter and Mind,—I am utterly at a loss to conceive what amount of argument could prove any proposition whatever. But the position will be still more strengthened in the next chapter.

[r] "Principles of Psychology," vol. ii. pp. 502-3.

CHAPTER VI.

THE ANTAGONISM OF MIND AND MATTER: A STRUCTURAL PRINCIPLE OF THE SYSTEM.

IT is within the limits of possibility that Mr. Spencer's oft-repeated statement, in the last chapter, that the principles of Realism are the only principles that can be accepted, and that subject and object both exist, may yet not be held to assert the existence of Mind and Matter. With a thinker so subtle as Mr. Spencer, it may be contended that, although he pledges himself to the Realistic belief,—to the plain deliverance of consciousness, to the belief in self and not-self,—he still explains this consciousness as only the outcome of material organization, and hence that he does not hold the belief in an immaterial Mind. It is therefore necessary to shew what is his notion of subject and object;—to make evident the broad lines along which his thought moves as he draws the distinction between them;—until the separating chasm grows ever deeper and wider; and at last the conclusion is reached that it is the widest and deepest disclosed by the whole universe, that the two are in opposite regions of being, separated from each other by a generalization in which all other generalizations are included.

He is moving along the diverging lines of the argument we traced in the last chapter,—the object whereof is to shew that the doctrines of Natural Realism are the only doctrines that can be held,—and he reaches along these lines the final climax which sets them up as absolutely unassailable. Now the doctrine of Natural Realism always means the assertion of the existence of these two factors,—subject and object, self and not-self. Accordingly, at this point in the argument, when he begins to shew the "Positive Justification of Realism,"—when he has proved that the simple deliverance of consciousness has a validity above every other,—he commences the

analysis of consciousness in order to discover what it really does assert. He thus sketches out the line of enquiry:—

"Here, then, rises before us a definite course of enquiry. Let us examine the cohesions among the elements of consciousness, taken as a whole; and let us observe whether there are any absolute cohesions by which its elements are aggregated into two antithetical halves, standing respectively for Subject and Object [a]."

He then supposes himself to be seated by the sea-side, where he has a view of land, clouds, sea, &c., as well as of his own hand and knee. At the same time his memory is active, and can recall somewhat similar scenes. Thus he will have a state of consciousness which includes the perception of the *non-ego* around him, of that part of the *non-ego* which forms his body, and the remembrance of former states of consciousness in some degree like to that which he now has. He then proceeds to examine his sensations; and he finds that they steadily pair off into two broadly marked classes; which classes, as they are severally compared and analysed, yield a series of very pronounced antitheses; which manifestly goes to shew that they are antithetical in their origin. (These two classes are what we call External Perception —the consciousness of the *non-ego;*—and Internal Consciousness—the sense of the *ego:* but Mr. Spencer here calls them the vivid and the faint; the vivid answering to the outside world, the faint to the world within us.) He thus draws up in serial order the antitheses these present:—

"Here placed in series are the several contrasts:—

States of the First Class.	*States of the Second Class.*
1. Relatively vivid.	1. Relatively faint.
2. Predecessors in time (or originals).	2. Successors in time (or copies).
3. Unchangeable by volition in their qualities.	3. Changeable by volition in their qualities.

[a] "Principles of Psychology," vol. ii. p. 453.

States of the First Class.	*States of the Second Class.*
4. Unchangeable by volition in their simultaneous order.	4. Changeable by volition in their simultaneous order.
5. Unchangeable by volition in their successive order.	5. Changeable by volition in their successive order.
6. Form parts of a vivid aggregate never known to be broken;	6. Form parts of a faint aggregate never known to be broken;
7. Which is completely independent of the faint;	7. Which is partially independent of the vivid;
8. And has laws that originate within it.	8. And has laws partly derived from the other, partly peculiar to itself.
9. Have antecedents that may or may not be traceable.	9. Have antecedents that are always traceable.
10. Belong to a whole of unknown extent.	10. Belong to a whole restricted to what we call memory[b]."

The investigation thus made is then criticised; and it is shewn that these two classes of states arrange themselves in serial order;—the vivid uniting with the vivid, and the faint with the faint;—and that consciousness does not possess the power of resisting this process of integration and antithesis. Each state goes off to its proper class, as if in obedience to deep law which compels it. The argument is thus summed up:—

"Finally, I observe that the differentiation thus anteceding thought, and afterwards verified and increased by thought, is imperative in the sense that there is no possibility of arresting the process by which it is from instant to instant reproduced. When dealing with the "Associability of Feelings" and the "Associability of Relations between Feelings," it became manifest that in the act of cognition each feeling aggregates primarily with the great class it belongs to—falling more or less promptly into its particular order, genus, species, variety; that the like happens with relations between feelings; and that Intelligence is made possible only by such classings. Here we see that at the same time each feeling, and each relation, in being known,

[b] "Principles of Psychology," vol. ii. pp. 463-4.

joins itself to one or other of these two great aggregates. There is no intermediate position possible for it—it gravitates instantly to the vivid or the faint. In cases where a momentary doubt occurs whether a certain slight sound is, as we say, real or ideal, or whether in the dusk a thing is actually seen or only fancied, an unpleasant tension accompanies the state of uncertainty. Even during the doubt it cannot be kept balanced between the two, but oscillates from one to the other. And when, under optical or other illusions, this automatic segregation is to any considerable extent prevented, there arises a painful state of confusion—a feeling of impending chaos caused by shaking this foundation of our intelligence[c]."

The analysis of these broadly distinguished states of consciousness is then continued; and it is shewn that although that part of them which we call Emotions is sometimes vivid, and sometimes faint, yet that both vivid and faint cohere together; and both arrange themselves in the faint series. Moreover these members of the faint aggregate have a general character of great significance—they tend to set up changes in a certain portion of the vivid aggregate—i.e. the emotions may initiate what are known as bodily movements. When we are seated, the voice of a friend behind us at once arouses us, excites a wave of pleasurable emotion, which puts an end to quiescence. Now before this occurred, the sets of vivid states known to us, say as hand and knee, were not manifestly distinguished from the rest of the vivid aggregate which we call our surroundings: but, as soon as that emotion of pleasure causes a transformation within us, we become conscious that the set of vivid states which we call the hand has some connexion with the faint aggregate, because after a feeling of muscular tension, which the emotion excites, the hand suddenly changes its place. There is then some coherence between the emotion and the hand. Similarly there is proved to be a coherence between the same emotion, and that complex mass of the vivid aggregate which we call feelings of touch; for, after the emotion, we rise, step forward, and speak.

[c] "Principles of Psychology," vol. ii. pp. 465, 466.

Following along this line of thought, we discover that the same vivid aggregate which, on feeling the emotion, rose up, stepped forward, extended the hand, and spoke, is sharply marked off from the rest of the vivid aggregate we call our surroundings by these peculiarities: that it is always present with us,—that a special cohesion is observable in its combination of states,—the order of its components is highly knowable,—the laws of relation among its changes are comparatively specific.

"In some way or other, then, there is attached to the faint aggregate a particular portion of the vivid aggregate; and this is unlike all the rest as being a portion always present, as having a special coherence among its components, as having known limits, as having comparatively-restricted and well-known combinations subject to familiar laws, and especially as having in the faint aggregate the antecedents of its most conspicuous changes [d]."

It is then shewn, by shutting the eyes, that the visual part of the vivid aggregate is forthwith absent; by opening them it reappears; and by turning round the head, a large part of the vivid aggregate changes its shape and colour; by turning it back, the vivid aggregate appears much as it was before. Similarly by other movements, it is proved that the faint aggregate has power to originate a great number of changes in the vivid aggregate. The argument is then thus stated:—

"Thus the totality of my consciousness is divisible into a faint aggregate which I call my mind; a special part of the vivid aggregate cohering with this in various ways, which I call my body; and the rest of the vivid aggregate, which has no such coherence with the faint aggregate. This special part of the vivid aggregate which I call my body, proves to be a part through which the rest of the vivid aggregate works changes in the faint, and through which the faint works certain changes in the vivid. And in consequence of its intermediate position, I find myself now regarding this body as belonging to the vivid aggregate, and now as belonging to the same whole with the faint aggregate, to which it is so intimately related [e]."

[d] "Principles of Psychology," vol. ii. p. 471. [e] Ibid., pp. 472, 473.

By a series of similar experiments, it is proved that whilst the vivid states of our consciousness have none of them any permanence,—or in other words do not persist; —that which does persist is the *nexus* which binds together these ever-varying appearances. The law of our intelligence bids us class together those things which are like, and apart those things which are unlike. The broadest contrast is between those ever-varying appearances, and the constant *nexus* which does not vary. This transcendent distinction needs some name which shall imply duration,—as distinguished from transitoriness;—permanence in the midst of what is not permanent. This *nexus* we signify by the word existence. He continues:—

"See, then, how completely, by observation of our states of consciousness, and of the ways in which they segregate, there is evolved a conclusion not in conflict with our primitive beliefs but in harmony with them.

"While we are physically passive, our states of consciousness irresistibly separate themselves from instant to instant into the two great aggregates, vivid and faint; each coherent within itself, having its own antecedents, its own laws, and being in various ways distinguished from the other. And this partial differentiation between the two antithetical existences we call Subject and Object, establishing itself before deliberate comparison is possible, is made clearer by deliberate comparison[f]."

Two clauses later we have:—

"So that these several sets of experiences unite to form a conception of something beyond consciousness which is absolutely independent of consciousness; which possesses power, if not like that in consciousness yet equivalent to it; and which remains fixed in the midst of changing appearances. And this conception, uniting independence, permanence, and force, is the conception we have of Matter.

"And now before closing the chapter, let me parenthetically remark on a striking parallelism between the conception of the Object thus built up, and that which we shall find to be the proper conception of the Subject. For just in the same way that the Object is the unknown permanent *nexus* which is never itself

[f] "Principles of Psychology," vol. ii. p. 482.

a phenomenon but is that which holds phenomena together; so is the Subject the unknown permanent *nexus* which is never itself a state of consciousness but which holds states of consciousness together[g]."

There is then shewn that the permanent *nexus* in the Object, answering to the permanent *nexus* in the Subject, is the same truth in another form which was arrived at in an earlier part of the Philosophy; viz., that the psychical idea has as its physical counterpart the nervous currents traversing the organism. Thus these two truths exactly fit together, and make the conclusion more certain. That conclusion is, as we have seen, that there is an unknown permanent *nexus* in the Object, and an unknown permanent *nexus* in the Subject. It is shewn that these both result from the fact that a state of consciousness segregates into

"two independent aggregates, each held together by some principle of continuity within it. The principle of continuity, forming into a whole the faint states of consciousness, moulding and modifying them by some unknown energy, is distinguished as the *ego;* while the *non-ego* is the principle of continuity holding together the independent aggregate of vivid states.[h] . . . Thus the normal processes of thought inevitably originate this inexpressible but indestructible consciousness of existence beyond the limits of consciousness; which is perpetually symbolised by something within its limits[i]."

Now if Mr. Spencer had written no more as to the depth of the chasm between Subject and Object, *ego* and *non-ego*, Mind and Matter, what has been above quoted,—which, be it remarked, only gives a very brief epitome of an argument which extends over many pages, —would surely be sufficient to establish, as one of the structural principles of his Philosophy, the radical and thorough-going divergence and even antagonism between them. But he has again, in another part of his Philosophy, presented arguments intended to shew how far

[g] "Principles of Psychology," vol. ii. p. 484.
[h] Ibid., p. 487.
[i] Ibid., p. 488.

they are apart; and here he employs all the resources of language in order to express his sense of their absolute and unparalleled separation.

At the end of the first volume of "Principles of Psychology," he has been shewing the exact agreement of the five different lines of evidence by which he establishes the great generalization that Mind and nervous energy are the subjective and objective sides of the same thing. He then supposes himself to be charged with unmistakeable Materialism. This accusation he repels with warmth, with great force, alike of language and of argument. He replies that he might say that, so far from degrading Mind to Matter, it would rather be true that he exalts Matter to Mind. But that he tells us is not the answer he makes. He might also say that he does not identify Mind with Matter, but with Motion, and that Motion is in no sense material. He then dwells upon the mystery of Motion, and says, "if I identify Mind with it, I identify Mind with something no less mysterious than itself[k]." But this answer also he declines to make. He adds a further refinement of the conception of Motion, and then says:—

"Comparatively consistent as is this answer, and serving though it does to throw back with added force the reproaches of the spiritualist, it is not the answer to be here given. In the closing paragraphs of 'First Principles,' and again in the earlier parts of the present work, the position taken was, that the truth is not expressible either by Materialism or by Spiritualism, however modified and however refined. Let me now, for the last time, set forth the ultimate implications of the argument running through this volume, as well as through preceding volumes.

"Carried to whatever extent, the inquiries of the psychologist do not reveal the ultimate nature of Mind; any more than do the inquiries of the chemist reveal the ultimate nature of Matter, or those of the physicist the ultimate nature of Motion. Though the chemist is gravitating towards the belief that there is a primitive atom, out of which by variously-arranged unions are formed the so-called elements, as out of these by variously-arranged unions are formed oxides, acids, and salts, and the multitudinous

[k] "Principles of Psychology," vol. i. p. 621.

more complex substances; yet he knows no more than he did at first about this hypothetical primitive atom. And similarly, though we have seen reason for thinking that there is a primitive unit of consciousness, that sensations of all orders are formed of such units combined in various relations, that by the compounding of these sensations and their various relations are produced perceptions and ideas, and so on up to the highest thoughts and emotions; yet this unit of consciousness remains inscrutable. Suppose it to have become quite clear that a shock in consciousness and a molecular motion, are the subjective and objective faces of the same thing; we continue utterly incapable of uniting the two, so as to conceive that reality of which they are the opposite faces. Let us consider how either face is framed in our thoughts.

"The conception of a rhythmically-moving mass of sensible matter, is a synthesis of certain states of consciousness that stand related in a certain succession. The conception of a rhythmically-moving molecule, is one in which these states and their relations have been reduced to the extremest limits of dimension representable to the mind, and are then assumed to be further reduced far beyond the limits of representation. So that this rhythmically-moving molecule, which is our unit of composition of external phenomena, is mental in a three-fold sense—our experiences of a rhythmically-moving mass, whence the conception of it is derived, are states of mind, having objective counterparts that are unknown; the derived conception of a rhythmically-moving molecule, is formed of states of mind that have no directly-presented objective counterparts at all; and when we try to think of the rhythmically-moving molecule as we suppose it to exist, we do so by imagining that we have re-represented these representative states, on an infinitely-reduced scale. So that the unit out of which we build our interpretation of material phenomena, is triply ideal.

"On the other hand, what are we to think of this ideal unit, considered as a portion of Mind? It arises, as we have seen, by synthesis of many feelings, real and ideal, and of the many changes among them. What are feelings? What is changed? And what changes it? If to avoid obvious implications of a materiality, we call each element of this ideal unit, a state of consciousness, we only get into other similar implications. The conception of a state of consciousness implies the conception

of an existence which has the state. When on decomposing certain of our feelings we find them formed of minute shocks, succeeding one another with different rapidities and in different combinations; and when we conclude that all our feelings are probably formed of such units of consciousness variously combined, we are still obliged to conceive this unit of consciousness as a change wrought by some force in something. No effort of imagination enables us to think of a shock, however minute, except as undergone by an entity. We are compelled, therefore, to postulate a substance of Mind that is affected, before we can think of its affections. But we can form no notion of a substance of Mind absolutely divested of attributes connoted by the word substance; and all such attributes are abstracted from our experiences of material phenomena. Expel from the conception of Mind every one of those attributes by which we distinguish an external something from an external nothing, and the conception of Mind becomes nothing. If to escape this difficulty we repudiate the expression 'state of consciousness,' and call each undecomposable feeling 'a consciousness,' we merely get out of one difficulty into another. A consciousness, if not the state of a thing, is itself a thing. And as many different consciousnesses as there are, so many different things there are. How shall we think of these so many independent things, having their differential characters, when we have excluded all conceptions derived from external phenomena? We can think of entities that differ from one another and from nonentity, only by bringing into our thoughts the remembrances of entities which we distinguished as objective and material. Again, how are we to conceive these consciousnesses as either being changed into one another or as being replaced one by another? We cannot do this without conceiving of cause; and we know nothing of cause save as manifested in existences we class as material—either our own bodies or surrounding things.

"See, then, our predicament. We can think of Matter only in terms of Mind. We can think of Mind only in terms of Matter. When we have pushed our explorations of the first to the uttermost limit, we are referred to the second for a final answer; and when we have got the final answer of the second we are referred back to the first for an interpretation of it. We find the value of x in terms of y; then we find the value of y in terms of x; and so on we may continue for ever without coming

nearer to a solution. The antithesis of subject and object, never to be transcended while consciousness lasts, renders impossible all knowledge of that Ultimate Reality in which subject and object are united[1]."

We have now seen the line of demarcation which Mr. Spencer draws between subject and object, Mind and Matter. Commencing with the broadest contrasts in a state of consciousness, he shews that these severally segregate themselves; each one gravitating in an instant to the one or the other, called respectively the vivid and the faint. It is then shewn that those members of the faint aggregate which we call Emotions, have power to cause changes in that part of the vivid aggregate which we call the body. Other cohesions are proved to exist between the same class of Emotions and other bodily movements. This portion of the vivid aggregate which coheres with the faint aggregate, is marked off from all the rest of the vivid aggregate in that it is always present with us,—has a special coherence among its components,—has known limits,—and especially has in the faint aggregate the antecedents of its most conspicuous changes. Thus the totality of consciousness is divisible into a faint aggregate we call the Mind, a special portion of the vivid aggregate cohering with the faint which we call the body, and the rest of the vivid aggregate. It is then shewn that, whilst the appearances of the vivid aggregate undergo changes, there is a certain *nexus*, which binds them together, that does not change. To this *nexus* we give the name existence. We thus obtain the conception of something beyond consciousness, and to this conception uniting independence, permanence and force, we give the name of Matter. As the Object has its *nexus* joining its parts together, so also the Subject has its *nexus*. To the *nexus* of the Object we give the name of *non-ego*; to the *nexus* of the Subject we give the name of *ego*. These two—Object and Subject—are as x and y,—two unknown factors which have no unit in common,—not to be de-

[1] "Principles of Psychology," vol. i. pp. 624—627.

composed into simpler elements,—forming an antithesis not to be transcended while consciousness lasts.

Thus we have shewn that Mr. Spencer makes Mind and Matter to be two separate entities having a chasm between them which logic can never bridge over,—which only grows wider and deeper the more it is explored,—which form an antithesis greater than every other antagonism,—which the nature of consciousness forbids shall ever be transcended. As, while consciousness lasts, we cannot transcend it, and *as consciousness must ever be our only source of knowledge*, it follows that *if consciousness should ever cease to last, our only source of knowledge at once ceases*, and hence it remains *one of the most absolute impossibilities* that we should ever be able to unite in thought the two. They are two parallel lines of being; and we can form no conception of any faculty that could shew them to meet. More certain than any of the axioms of Euclid is their mutual existence, and their absolute separation. Any conception of an Ultimate Reality in which they are united is a pure figment of the imagination; all knowledge of it is for ever denied to us. To us, Mind is Mind, and Matter is Matter, and no uniting link can come within our horizon.

CHAPTER VII.

IS MR. SPENCER'S "FORCE" INTELLIGENT OR UNINTELLIGENT?

WE have now seen that Mind and Matter are, by this Philosophy, both proved to exist; and to have an antithesis between them greater and deeper than our language can set forth. They are at the opposite poles of being; comprehensible only in the one supreme genus of thought, "Existence;" and, if ever united into one Ultimate Reality, that Reality from whence they spring must remain, by the nature of our consciousness, for ever inscrutable to us.

It is hardly necessary to say that between them the whole universe of Existence is divided. We can form no conception of anything which does not at once class itself with one or the other; every middle term is excluded; they form logical contradictories; and whatever cannot be ranked with the one at once makes good its claim to go to the opposite ranks. Between that which is subjective, and that which is objective; that which thinks, and that which does not think; that which is not extended, and that which is extended; that which has not weight, and that which has weight; there can be no neutral territory in the whole realm of being.

We are therefore entitled to ask Mr. Spencer:—In which of these great categories does he place the "Force" and its "Persistence" out of which he constructs the universe? In Mind? or in Matter? or in both?

Obviously this is a crucial question, on which nothing less than the logical coherence of his whole System of Philosophy may be shewn to depend. Let us note the results of the three answers it is possible for him to make.

1. He may say that the "Force" with its Motion, or Persistence, is made up out of Mind alone. He may assert that Matter has no substantive existence; but that

what seems to be such is only the outcome of Mind. Adopting this answer,—which it is not probable he would give,—he disperses into the thin gossamer of a mental conception the solid world of matter all about us.

2. He may say that the Force and its Motion are alike material; that they are not guided by Mind; that they contain no elements of Mind within them; that as they go on their endless transformations there is only the transformation of material substance; and that they carry on their way no element that is of a mental order. This reply is open to him; it represents the Agnostic and Infidel aspect of his Philosophy; and, if he chooses it, the result will be that his Philosophy falls into ruins, for, on this supposition, every particle of Mind in the universe remains unaccounted for.

3. He may say that the Force, with its Motion, belongs both to Mind and to Matter, — that the aggregate which produces the conception of the *non-ego* is material, and that the aggregate which produces the conception of the *ego* is mental. By giving this answer, he preserves the structural unity of his Philosophy; gives the "Force" that dualism which, on his own shewing, is the aspect of the universe; solidly integrates his system with every man's common sense; and takes away its Agnostic and Infidel aspect.

It hardly needs argument to prove that these answers must have these results. He has himself made the matter so plain that scarcely anything more is wanted than to place some of his statements in juxtaposition.

He has told us that we can only think of Mind in terms of x, and of Matter in terms of y. Our entire thought then about Mind must be a function of x; our entire thought about Matter a function of y. Let z represent the "Force" out of which he has educed x and y.

Now on the first supposition;—viz., that the "Force" is only Mind and not Matter;—we have z, producing by its evolution x; but all the y in the universe,—the entire world of Matter,—remains unaccounted for.

On the second supposition;—viz., that the Force is only

material, and is destitute of Mind;—we have z, producing by its evolution y; but all the x in the universe—the entire world of Mind—remains unaccounted for.

Lastly, on the third supposition;—viz., that the Force is both material and mental, we have z, producing by its evolution x and y—Mind and Matter—fitting solidly into all the facts of the universe.

Reasoning in symbols gives of course the highest degree of generality to the argument, and makes it on that account more conclusive. Necessarily it is a stripping off of all the non-essential elements, and a presentation of the logic of the case in the simplest possible form. And so presenting the matter, I am unable to perceive what other alternations are possible than those already stated. At a later stage in this volume an attempt will be made to shew this abstract result clothed in its concrete shape; —the "Force," with its Motion, gradually producing, in the course of its evolution, the world as it now exists. We shall then see that the argument stated in the concrete shape leads us to precisely the same conclusion as that at which we arrive in the abstract. As the Mind in men is shewn to evolve out of the Force, we shall see that such evolution is an absolute impossibility, save on the supposition that the Force is already instinct with Mind—is guided by Mind, has within it those mental elements which can build up Mind, is indeed neither more nor less than undeveloped Mind. That Force must contain all the Mind manifested in men and in the universe as distinctly as an embryo contains the Life which issues from it. Either this must be conceded, or the entire principle of Evolution and the Persistence of Force is set aside.

Taking it then as proved that our whole knowledge of Mind and of Matter is representable by two symbols, x and y, which have no factor in common;—our whole thought of each one being only a function of its factor;—it follows, as a necessary corollary from the axiom that Force must persist, that all changes which any Force can effect must be,—so to speak,—*in eadem materiâ*—in the same plane.

For, let us suppose the contrary to be possible. Let a Force operate in the region of Matter;—the result is scientifically interpretable only as a change in the masses or molecules of that Matter. Suppose now this Force passes on from Matter to operate in the region of Mind. Obviously,—if we are to interpret its action philosophically,—we can only say that there has been a break in its persistence, that it has performed a leap over a chasm which our highest reason tells us is impassable. A function of y has in some way or other entered the realm of x! which is a proposition that, if driven to accept, overthrows our every mental structure. Conversely a Force operating in the region of Mind travels on to its boundary, leaps over that boundary, and produces changes in the realm of Matter. Then again there is a break in its persistence. The realm of x is one logical coherent whole; we can travel logically over its whole extent from any part of it,—at least there are no impassable gaps in its territory,—but when we try to carry logic over to the realm of Matter—to unite in thought an emotion, and a current of nerve molecules—then logic absolutely refuses to perform this operation; for it sees that a function of x can only persist in x, a function of y can only persist in y. And it need hardly be pointed out that the axiom that a Force must operate *in eadem materiâ* is an axiom taken for granted in every scientific argument. It is indeed only a part of the axiom that Force persists which Mr. Spencer has shewn is underlying every scientific equation. When a chemist computes the quantity of any one element in a lengthened chemical process, his reasoning clearly proceeds on the supposition that that element remains in weight the same, and receives no addition from the other elements with which it has been compounded. No atom can leap from one element to another. Similarly each element of the sixty-three has its own distinct lines of demarcation; and it is at present an impossibility to science to change one element into the element most like it. Gold cannot be changed into Zinc; Carbon cannot be changed into Oxygen. No doubt Mr. Spencer holds that

these transmutations may have been effected; but therein he confessedly goes beyond any scientific knowledge. There is no man of science who is not compelled to admit that the barriers between the elements are, as yet, impassable. The Force we know as Gold will only persist as Gold; the Force we know as Iron will only persist as Iron. To Mr. Spencer the chasm between Gold and Iron is a mere bagatelle. *À fortiori* then when he proclaims a chasm to be of such a nature that to it the chasm between Gold and Iron is a trifle, that chasm must indeed be deemed a vast one; and to think that a Force operating on the one of its sides can be changed into a Force which operates on the other side is to hold possible a great logical miracle, contrasted with which the transmutation of Iron into Gold is an easy and common-place occurrence.

If then a scientific interpretation of the universe impels us to the belief that the Mind in Man has grown up by successive differentiations from lowly organisms;—and if we are further driven by exact Science to hold that those organisms have been evolved out of inorganic forces;—and if those inorganic forces are ultimately resolvable into one Force with its Motion;—still our only mode of giving an interpretation to this process, which can satisfy logic, is to hold that in that Force there were contained both Matter and Mind,—both x and y: that as it evolved, Matter and Mind, x and y, were steadily differentiated: that they continued acting, each one in its own realm,—the Mind building up Mind and the Matter building up Matter. In this way only can Mr. Spencer's Philosophy be allowed to be a consistent and homogeneous whole; and in this way it loses all its Agnostic and Infidel aspect; and becomes a Philosophy which, satisfying Reason, also accords with Revelation, and with the deepest instincts of our moral nature.

This then is the dilemma on which, it seems to me, Mr. Spencer is impaled. Either his "Force" with its "Persistence" is instinct with Mind or not. If it is instinct with Mind, his Philosophical system may be pro-

nounced, so far, a structural unity, and as such may endure; if it is not instinct with Mind his whole Philosophy is a ruin. In order to shew the dilemma more fully let us proceed on the supposition that the Force is only material, and is destitute of Mind.

CHAPTER VIII.

THE ATTEMPTED TRANSITION FROM MATTER TO MIND.

WE saw, when examining the structure of Mr. Spencer's system, that, out of "Force" and its "Persistence" he attempted to construct logically the whole universe, —including Mind and Matter,—as we at present know it. Now it is only just to a logician of his calibre and power to take it for granted that he would not allow his system to have in it a vast logical hiatus, which he knows better than any one else can never be mentally bridged over. To hold otherwise is to suppose that a thinker of European reputation, and a consummate master of dialectic, is positively lacking in some of the first principles of common sense. It seems to me therefore well-nigh incredible that Mr. Spencer can hold the Force out of which he has evolved the world to be Unintelligent; and I should not deem myself justified in the bare suspicion, were it not that that is by far the most commonly accepted interpretation of his Philosophy. It seems to be implied in his characteristic and favorite statement that the Power manifest in the universe is "Unknowable." But, manifestly, if that Power is Intelligent, it has, at any rate, one characteristic which we can interpret. Say that it is like Light, utterly unpresentable in terms of our intellect. But as a ray of that unknown Light, coming from the sun, may write itself upon the spectrum, and tell us, when read by a rightly instructed intellect, some of the metals in the sun, so, in the same way, if the Power from whence came the universe writes upon our intellects, when justly interpreted, its name "Intelligent," then obviously this "Unknowable" has one attribute our faculties can comprehend.

In taking the opposite view,—that the Force is not Intelligent,—and shewing the break-up of his system on this supposition, Mr. Spencer has only himself to thank

that such a course should be necessary. If he does not hold it himself;—as I hope and believe he does not;—he has gone culpably near to it; and has misled thousands into accepting that belief. He has utterly disavowed Materialism, but multitudes of his disciples are pronounced Materialists. Materialism must therefore, one would think, have predominated in his exposition; if there has been all along a deep Spiritual explanation, he has not made it evident; and has by no means given it a fair proportion. In assailing then his Philosophy on this supposition, I hope I am dealing with a mere phantom, which is only a notion in men's minds, and not a real existence.

In "First Principles,"—in the chapter on the "Transformation and Equivalence of Forces,"—he has been shewing that all the changes in the physical universe came from the solar rays. That is to say, he proves the doctrine of the "Correlation of the Physical Forces." He then proceeds to shew that from the same force come all the organic, vital and mental changes. He allows that his reasoning is hardly conclusive, and he therefore attempts to prove that his doctrine is a necessary corollary from the "Persistence of Force," which, as he has proved, is a datum of consciousness. The following are his words:—

"Each manifestation of force can be interpreted only as the effect of some antecedent force; no matter whether it be an inorganic action, an animal movement, a thought, or a feeling. Either this must be conceded, or else it must be asserted that our successive states of consciousness are self-created. Either mental energies as well as bodily ones are quantitatively correlated to certain energies expended in their production, and to certain other energies which they initiate; or else nothing must become something, and something must become nothing. The alternatives are, to deny the persistence of force, or to admit that every physical and psychical change is generated by certain antecedent forces, and that from given amounts of such forces neither more nor less of such physical and psychical changes can result. And since the persistence of force, being a datum

of consciousness, cannot be denied, its unavoidable corollary must be accepted[a]."

I have expended some hours of thought upon this passage, in order to make sure of not unjustly accusing a thinker like Mr. Spencer of faulty reasoning; but each examination only makes me more certain that, for once at least, he is altogether illogical. Let us look at what he says, sentence by sentence. "Each manifestation of force can be interpreted only as the effect of some antecedent force: no matter whether it be an inorganic action, an animal movement, a thought, or a feeling." All this we may concede, adding only this proviso, that every antecedent force which generates an action must operate in the same region as that action,—must be *in eâdem materiâ*;—and as Mr. Spencer has assured us that the antecedent solar ray is at the opposite pole of being from the mental energy it is said to originate, we are curious to learn how this chasm is going to be bridged over. The magician is going to pass from the extended beam of light (for to the scientific imagination, the Matter or Ether of which light is the undulation has surface and weight as manifestly as a cannon-ball—an undulation is unthinkable save as existing in a material substance), he is going to travel logically from this extended beam of light to the unextended Mind; and we wonder by what road. He continues: "Either this must be conceded, or else it must be asserted that our successive states of consciousness are self-created." This may pass without remark. But he goes on,—"Either mental energies, as well as bodily ones, are quantitatively correlated to certain energies expended in their production, and to certain other energies which they initiate; or else nothing must become something and something must become nothing." Now see the sophism in this sentence. Undoubtedly "mental energies" are "quantitatively correlated to certain energies expended in their production," but the energies which alone can generate mental energies must themselves be

[a] "First Principles," 2nd Edit., p. 221.

mental, for Matter can never build up Mind. No x, multiplied by any conceivable factor, can make y. Where organic life is already existing, solar rays may so act upon it as to give it power to assimilate inorganic Matter, and so build up the Matter of which its nerve tissue is composed; but the Mind, which dwells in that nerve tissue, can only be produced by something that can build up Mind. This, solar rays are powerless to do. By the "certain energies" which are expended in the production of Mind, Mr. Spencer means physical energies—the energies of the sun;—his argument is pure nonsense if he does not mean these;—but if we take these solar energies to be material only, and to contain nothing of a mental order, Mr. Spencer's sophism appears at once. "Either mental energies as well as bodily ones are quantitatively correlated to certain" (material and unintelligent) "energies expended in their production"—here we see the absurdity in a moment:—material energy utterly destitute of any trace of Mind or Intelligence, expends itself, and becomes, lo! and behold! Mind. Matter, not informed by Mind, not guided by Mind, becomes attenuated and refined until it grows into and produces Mind! Now Mr. Spencer has told us in many places, as we have seen, that Mind and Matter are at the opposite poles of being,—have between them a chasm we may never hope to cross,—yet here he makes one evolve into the other.

Here then,—on the hypothesis that Mr. Spencer's Force is Unintelligent,—is a vast and structural defect;—a defect so great, and deep, and radical, as to cause, in my judgment, the break-up of his whole system. A yawning chasm,—a chasm wider than which there cannot be, since it is as broad as the chasm between Matter and Mind,—is now made in what, to be a "System of Philosophy," must be one consistent and logical whole. Materialism, if he elects for it, will work his ruin. The abyss of philosophical perdition is before him if he is so unwise as to choose that road.

It will be observed that Mr. Spencer here goes far beyond the statement of Professor Tyndall. In the Belfast

Address we were told:—"We can trace the development of a nervous system, and correlate with it the parallel phenomena of sensation and thought[b]." To this language there can be no objection. A nervous system already implies Mind: nervous matter is a composition of two factors, objective and subjective: objective it is Matter, subjective it is Mind. Of course, therefore, sensation and thought may be correlated with it. But Mr. Spencer speaks of "physical energies,"—the rays of the sun,—evolving into "mental energies," the operations of the mind!

It can hardly be necessary to pursue the argument further. Mr. Spencer's reasoning hopelessly breaks down. Having an impossible task to perform, he fails to accomplish it.

Probably it will be well to shew from other passages that Mr. Spencer really attempts to pass without a logical break from the inorganic,—which, on our present hypothesis, is Material,—to the organic—which contains what we call Mind. On this point the following quotation seems to me conclusive:—

"The separation between Biology and Geology once seemed impassable; and to many seems so now. But every day brings new reasons for believing that the one group of phenomena has grown out of the other. Organisms are highly-differentiated portions of the Matter forming the Earth's crust and its gaseous envelope; and their differentiation from the rest has arisen, like other differentiations, by degrees. The chasm between the inorganic and the organic is being filled up. On the one hand, some four or five thousand compounds once regarded as exclusively organic, have now been produced artificially from inorganic Matter; and chemists do not doubt their ability so to produce the highest forms of organic Matter. On the other hand, the microscope has traced down organisms to simpler and simpler forms until, in the *Protogenes* of Professor Haeckel, there has been reached a type distinguishable from a fragment of albumen only by its finely-granular character[c]."

[b] Belfast Address, 1st Edit., p. 59.

[c] "Principles of Psychology," vol. i. p. 137.

Once more he says:—

"That Life consists in the maintenance of inner actions corresponding with outer actions, was confirmed on further observing how the degree of Life varies as the degree of correspondence. It was pointed out that, beginning with the low life of plants and of rudimentary animals, the progress to life of higher and higher kinds essentially consists in a continual improvement of the adaptation between organic processes and processes which environ the organism. We observed how along with complexity of organisation there goes an increase in the number, in the range, in the speciality, in the complexity, of the adjustments of inner relations to outer relations. And in tracing up the increase we found ourselves passing without a break from the phenomena of bodily life to the phenomena of mental life[d]."

These passages all hang together, and form one solid argument,—which is a structural part of his whole system,—that there has been no break whatever between the original Force, and the noblest developments of Mind. On the hypothesis then that that Force was not Intelligent, we have him attempting to get Intelligence out of Non-Intelligence, Mind out of Matter, x out of y. But this, he has himself told us, is to logic an absolute impossibility; is a feat which consciousness cannot perform. But as we saw he declares consciousness to be the ultimate court of appeal[e];—clearly then his Philosophy is, on this hypothesis, no longer a unity; it is broken up into two contradictory wholes. He declares on the one hand that consciousness is the supreme and absolute test of validity; he says on the other hand that he can logically do what consciousness says he cannot. These are logical contradictories, which no reasoning can reconcile. His system falls in ruins—intelligence cannot accept it.

And now, having pierced his centre, he may, it seems to me, be driven back along the whole line. His sophistical evasion of the real difficulty,—his illicit introduction of a factor he has no right to introduce, which we have marked in this instance,—perpetually characterises his

[d] "Principles of Psychology," vol. i. pp. 293, 294.

[e] Ibid., vol. ii., General Analysis, pp. 305—503.

reasoning; and although he cannot often be brought to book, as in this case, yet at every point in his argument there is the same use of a forbidden element. He is engaged in elaborating the element of Material Force; and he is entitled to take all that Force can give him. But until *he shews how Material Force can become Mind*,—how the extended beam of light can become the unextended,—he is not entitled to one iota of mental energy. We may say to him, adapting well-known words:—

> "Take thou thy beams of light;
> But, in the taking them, if thou dost filch
> The smallest particle of Mind's proper powers,
> Thy system falls all shatter'd and o'erthrown;
> Thy serried ranks are cleft, and ne'er again
> Shall Reason own thee as her loyal son."

Now this offence Mr. Spencer commits. He steals some Mind, and he maintains, underneath the surface of his reasoning, an illicit channel of communication, by which he can, all unperceived, take feloniously as much more Mind as his necessities may demand. His argument is curiously like the common account of the introduction of sin into our world. One sin, seemingly simple, introduced the principle; and that sin went on working *underneath the surface;* present in every part of the long line of all the generations of men. Or, to take another illustration. He is like one weaving a thread of varied strands, who, by sleight of hand, has obtained one strand to which he has no just right; and then, having it, keeps working onward, ever taking more, and so produces his thread with the one strand which everybody knows has no right to be there. So Mr. Spencer, being engaged in developing solar rays, has seized this thread of Mind; he then skilfully contrives to wind solar rays and Mind together, until at length he reaches molluscs; and he still continues the process until, at length, out of the first patch of star dust, we have evolved the powers of a Shakspere! His logical sin is, therefore, one of the most dangerous and most unpardonable kind; for it is one which is ever

secretly repeated, and ever on a larger scale;—he has embezzled some Mind, and he goes on purloining, until he has done his best to construct a universe without an Intelligent Creator.

Thus along every part of the far-extending generalization which stretches from the humblest organic form right through the whole of animated nature, until it finds its completion in Man,—and in the highest powers of the highest man,—Mr. Spencer has contrived, in this illogical fashion, to put that element of Mind to which he has no conceivable right. His long line of circumvallation is manned by men whom he has stolen, one by one, as he needed them, from the opposite ranks. Solar rays acting on extended and solid molecules of the Matter of which nervous fibres are made, can indirectly build up that Matter (i.e., they give the Matter energy to build up itself), but they can never build up the Mind which rides upon or dwells within those molecules. If *Eozoa* are declared to be sentient, we can only attribute such sentiency to a low kind of Mind, which dwells within them; and we refuse as resolutely as ever to regard that Mind as only the synonym of a nervous change. With them, as with us, Mind rides upon the nervous changes, is correlated with those changes, but is separated from them by the whole diameter of being. And as the line of Evolution is carried on by Mr. Spencer from *Eozoa* up to higher organisms, at each step of the process, as the nervous matter is developed, he quietly *takes it for granted* that Mind develops along with it. Having once crossed *per saltum* the chasm between Matter and Mind he steadily continues moving on these forbidden paths, until the exigencies of his argument, as we shall see, force him to a further unwarranted leap. And as he shews nervous matter developing at an ever greater ratio, and as he assumes that Mind develops at the same ratio, the result is that his original sin is growing to ever greater proportions. At first he had only stolen the mind needed for a mollusc; at last he has grown bold, and filches away the Promethean fire needed for the creations of a Shakspere.

Now, if this reasoning be just and honest, as it seems to me—on the supposition that his Force is Unintelligent—it must be allowed to be;—then surely we have done nothing less than, in effect, throw down Mr. Spencer's high line of defence from one end of his fortresses to the other. For we have shewn that it can be fatally pierced at any point we choose to name. Every tiny evolution of nerve matter he claims to be an evolution of Mind;—and his philosophy falls in utter ruin if it be not such an evolution of Mind. Now we have shewn it is not such an evolution; hence at every point of his mighty generalization he can be successfully assailed, and all his defences ground into powder. We have nothing to do but to choose our points of attack. Let us select one.

The mode in which Mr. Spencer attempts to shew that a rudimentary eye might be produced by the known action of light on the organism will suffice for our purpose. He has been shewing that Life, as we can trace it, may be described as correspondence between an organism and its environments; he has also shewn that Life becomes larger, and more complex, as a greater, and more complex environment plays upon the organism: and he is in the midst of a chapter where he traces that correspondence as extending in Space. He has shewn how all the senses might, by this means, be developed; and he comes to the sense of Sight. These are his words:—

"Though that ability to distinguish light from darkness which characterises the entire body in sundry of the humblest types, foreshadows the visual faculty, nothing like what we call sight results until this ability is concentrated in a particular spot. The rudimentary eye consisting, as in a *Planaria*, of some pigment grains, may be considered as simply a part of the surface more irritable by light than the rest. Some idea of the impression it is fitted to receive may be formed by turning our closed eyes towards the light, and passing the hand backwards and forwards before them. But as soon as even this slight specialisation of function is reached, it becomes possible for the organism to respond to the motions of opaque bodies that pass near. While only a general sensitiveness to light exists, the in-

tercepting of the sun's rays by something which throws the whole or a greater part of the creature into shade is required to produce an internal change; but when there comes to be a specially sensitive spot, anything which casts a shadow on that spot alone, produces an internal change. And as that which obscures only a small part of the organism is usually a comparatively small object, this advance from diffused sensitiveness to concentrated sensitiveness enables the organism to respond, not only to marked general changes in luminousness which its environment undergoes, but also to marked special changes in luminousness caused by the motions of adjacent bodies[f]."

Mr. Spencer here commences to travel from the sensation of the oyster to the perception of the eagle. This is therefore an important turning-point; being nothing less than a line of higher departure. We can see how he shews that the sensation caused *by actual contact*, which all organised bodies manifest, might, by the known action of light upon a sensitive organism, set up a higher degree of nervous activity in that part of the organism which was thus acted upon; which higher nervous activity would, in accordance with well-known physiological laws, slowly but surely produce such structural modification as would enable the organism to detect the existence of opaque bodies *not in actual contact* with it. The remarkable fish, the *Scopulus*, which inhabits the lowest depths of the Atlantic, and hence needs to utilise all the light that reaches it, to do which it has developed three imperfect eyes on each side of the back, is, perhaps, a concrete example illustrating Mr. Spencer's abstract statement. It is quite certain that if our sense of touch were made fine enough it could appreciate the impact of beams of light. Professor Crookes' beautiful experiments, shewing the dynamical power of light, sufficiently prove this. The transition, therefore, from sensation to perception is not intrinsically improbable. But let this be distinctly remarked. Whatever increase of Mind, or of nervous sentiency, we attribute to a creature thus developed, to that increase Mr. Spencer has no manner of right. He must

[f] "Principles of Psychology," vol. i. pp. 314, 5.

steal every particle thereof. If the Mind in the nervous organisation of a creature able to detect only actual contact be 20, and the Mind in a creature able to detect an object not actually touching it be 25, that difference of 5 represents so much Mind that the exigencies of Mr. Spencer's argument compel him to purloin. As nervous matter is specialised and differentiated it needs Mind as, so to speak, its subjective lining; and as Mr. Spencer has never shewn how he can honestly obtain one particle of this lining, we have no choice but to declare, if he really claims to have shewn, out of Unintelligent Force, the Evolution of Mind, that he can only do so by committing logical felony, on a scale, with an audacity, and in a fashion so dexterous, that he must stand out as one of the most distinguished of all the sophists who have bewildered mankind.

But alike by philosophers, and by people of common honesty and common sense, Mr. Spencer must be required to restore his ill-gotten gains. The commandment, "Thou shalt not steal," is a structural principle of civilised communities; and even philosophers must observe it. As we saw, Mr. Spencer makes it, in the "Data of Ethics," one of the cardinal virtues. Our Apostle of scientific morality must be required to act up to his own precept,—must act as an honest man. Let him be just. Let him restore all that Mind which he has so dexterously purloined. Then his whole System of Philosophy remains without one particle thereof. In that case his supposed unification of all knowledge is only a dream of deceit; he loses his rank amidst the immortals; he becomes only an *ad captandum* philosopher, logical and consistent in the eyes of the shallow and the careless only, but winning none of that enduring renown which is the homage given by our race to great powers nobly employed.

Mr. Spencer must excuse the use of a grave and solemn tone. He needs reminding that, by any worthy canon of conduct, the words we write, and put before others, bring with them a tremendous responsibility. The more exalted the position, intellectual or otherwise, the more

care must be employed to use that position aright. Mr. Spencer will surely accept such a maxim; followers of Christ have been taught, "Unto whomsoever much is given, of him shall be much required[g]." A powerful philosopher, whose intellect is not guided by a morality as refined, as penetrating, and as far-reaching as his intellect, may be to a people nothing less than an evil angel—may send them on a course which brings destruction to uncounted millions. One who tries to lead the race away from the old foundation of Morals is entering on a perilous path; he had better look well to his steps; for if he leads astray he will surely bring them to a moral descent, the depth and area of which no man can foresee.

We leave then Mr. Spencer impaled on this dilemma. Either his Philosophy is a hopeless ruin, since two of its structural principles, viz.,—1. That Mind and Matter are separated by a chasm we can never cross, and 2. That his system actually evolves Mind out of Matter—are direct and logical contradictories; which results if his Force is Unintelligent: or the Force out of which he makes all things to be evolved is a Power of the nature of Mind, is indeed the Mind from whence all the Intelligence in organic nature has sprung. He must choose to which camp he will belong: to elect for Materialism will ruin him: to elect for an Intelligent Power will be his salvation.

[g] Luke xii. 48.

CHAPTER IX.

THE DISTINCTION BETWEEN SUBSTANCE AND PHENOMENA: A STRUCTURAL PRINCIPLE OF THE SYSTEM.

THE doctrines of Natural Realism,—of the existence of subject and object,—almost imply, as a logical necessity, the distinction between Substance and Phenomena. Where, in a system of Philosophy, object and subject alike stand out, as two great entities that cannot be merged in each other, the fidelity to fact thus evidenced brings, as a reward, a structural truthfulness in other parts of the system. We have seen that Mr. Spencer resolutely separates himself from Materialism and Idealism; and takes his stand on Realism. As might be expected therefore, his Philosophy draws a marked line of distinction between the appearance and the substratum on which it rests.

It would hardly be necessary to prove this at any length, were it not that, in a vital and structural part of his system, as we shall see in the next chapter, Mr. Spencer ignores the distinction between Substance and Phenomena, and treats the matter as if the Phenomena exhausted the whole of the contents. To make evident the contradiction between these two parts of his system, it is therefore necessary to adduce sufficient evidence to prove that he makes both statements.

In "First Principles" there is abundant evidence that he makes structural the distinction between the appearance, and the underlying reality on which it rests. Thus he has a whole chapter devoted to proving the Relativity of all knowledge; or, as he states it in other words, "that the reality existing behind all appearances is, and ever must be, unknown[a]." Manifestly the "appearances" can only be the "Phenomena," whilst the "reality existing

[a] "First Principles," p. 69.

behind" them can only be the "Substance." In entering on the proof of this thesis he says:—

"Proof that our cognitions are not, and never can be, absolute, is obtainable by analyzing either the *product* of thought, or the *process* of thought [b]."

It is then shewn, through several pages of argument, that every explanation of any appearance is only a classification of it under a more general cognition. A scientific explanation is only a referring it to some scientific law:—

"Of necessity, therefore," is his conclusion, "explanation must eventually bring us down to the inexplicable. The deepest truth which we can get at, must be unaccountable. Comprehension must become something other than comprehension, before the ultimate fact can be comprehended [c]."

It is hardly necessary to point out that "the inexplicable," "the deepest truth," "the ultimate fact," can only mean the Substance or substratum, whilst as clearly the appearances, which this substratum presents to us, are the Phenomena. The argument passes on to shew that whilst we have no comprehension of the Absolute we are still unable to expel the idea from our consciousness. It is thus summed up:—

"Though Philosophy condemns successively each attempted conception of the Absolute—though it proves to us that the Absolute is not this, nor that, nor that—though in obedience to it we negative, one after another, each idea as it arises; yet, as we cannot expel the entire contents of consciousness, there ever remains behind an element which passes into new shapes [d]."

Here what "ever remains behind" must be Substance, and "each idea as it arises" can be only Phenomena. A few lines later we have:—

"In each concept there is an element which persists. It is alike impossible for this element to be absent from consciousness, and for it to be present in consciousness alone: either alternative involves unconsciousness—the one from the want of the substance; the other from the want of the form. But the

[b] "First Principles," p. 69. [c] Ibid., p. 73. [d] Ibid., p. 94.

persistence of this element under successive conditions, *necessitates* a sense of it as distinguished from the conditions, and independent of them. The sense of a something that is conditioned in every thought, cannot be got rid of, because the something cannot be got rid of[e]."

Clearly this *element which persists*,—this "something" "conditioned in every thought"—is the Substance; whilst the conditions from which it is distinguished are the Phenomena. On the same page we have:—

"To speak more rigorously:—this consciousness" (of the Absolute) "is not the abstract of any one group of thoughts, ideas, or conceptions; but it is the abstract of *all* thoughts, ideas, or conceptions. That which is common to them all, and cannot be got rid of, is what we predicate by the word existence. Dissociated as this becomes from each of its modes by the perpetual change of those modes, it remains as an indefinite consciousness of something constant under all modes—of being apart from its appearances. The distinction we feel between special and general existence, is the distinction between that which is changeable in us, and that which is unchangeable[f]."

It will of course be understood that we are not now dealing with Mr. Spencer's opinions as to our consciousness of the Absolute, but as to the distinction between Substance and Phenomena. His phrases state this in unequivocal language. The "*something* constant under all modes,"—the "*being* apart from its appearances"—is clearly the Subject; whilst the "*modes*" under which it appears—the "*appearances*" it presents,—are as clearly the Phenomena. A few lines later we have:—

"As we can in successive mental acts get rid of all particular conditions and replace them by others, but cannot get rid of that undifferentiated substance of consciousness which is conditioned anew in every thought; there ever remains with us a sense of that which exists persistently and independently of conditions. At the same time that by the laws of thought we are rigorously prevented from forming a conception of absolute existence; we are by the laws of thought equally prevented from ridding our-

[e] "First Principles," p. 95. [f] Ibid., pp. 95, 6.

selves of the consciousness of absolute existence: this consciousness being, as we here see, the obverse of our self-consciousness. And since the only possible measure of relative validity among our beliefs, is the degree of their persistence in opposition to the efforts made to change them, it follows that this which persists at all times, under all circumstances, and cannot cease till consciousness ceases, has the highest validity of any[g]."

Mr. Spencer will be seen from the last sentence to state that our belief in this Substance—in that "which persists at all times"—is a belief having the highest validity of any of the deliverances of consciousness. Thus, solidly integrating this doctrine of the distinction between Substance and Phenomena with the deliverances of consciousness, he manifestly makes it to be a truth more certain than which cannot be found. So he says:—

"how impossible it is to get rid of the consciousness of an actuality lying behind appearances; and how, from this impossibility, results our indestructible belief in that actuality[h]."

Fitting solidly into the same proof,—and shewing that Mr. Spencer holds the doctrine as structural,—are many of his favorite phrases; which express in a few words an idea that runs like a great mountain-chain throughout his system. Thus he constantly tells us that "the Power which the universe manifests is utterly inscrutable[i]." Passing by the statement as to the unknowable character of the Power, it is evident that the expression "Power which the universe manifests," means that the "Power" is the Substratum—the unknown Reality lying behind all appearances;—whilst "the universe," and its "manifestation," can only be the Phenomena,—the form or shape which this Power manifests to us.—We have the same truth clearly stated in scattered expressions, thus:—

"The Noumenon, everywhere named as the antithesis of the Phenomenon, is throughout necessarily thought of as an actuality. It is rigorously impossible to conceive that our knowledge is a knowledge of Appearances only, without at the same

[g] "First Principles," p. 96. [h] Ibid., p. 97. [i] Ibid., p. 46.

time conceiving a Reality of which they are appearances; for appearance without reality is unthinkable[j]."

That is, Phenomenon without Substance is unthinkable. Again we have:—"ascertained phenomena and their relations... but also that unascertained something which phenomena and their relations imply[k]"—"various attributes we ascribe to bodies[l]"—"when we think of any definite cause there arises a nascent consciousness of a cause behind it[m]"—and so on.—Not without meaning too are such expressions as:—the "soul of truth contained in erroneous creeds[n]:"—"Religion under all its forms[o]:" "Science substantially true[p]:" "Religion everywhere present as a weft running through the warp of human history expresses some eternal fact[q]:" "that element common to all religions which remains after their discordant peculiarities have been mutually cancelled[r]."—Many more of such expressions might be quoted.

It might however be urged that (although Mr. Spencer's language seems conclusive as to his drawing the distinction between Substance and Phenomena in the case of Matter—of the *non-ego*)—nothing has yet been adduced to shew that he holds a similar doctrine with regard to the *ego*. The following passage however can hardly fail to prove that he holds the doctrine with regard to the latter as distinctly as with regard to the former.

"Belief in the reality of self, is, indeed, a belief which no hypothesis enables us to escape. What shall we say of these successive impressions and ideas which constitute consciousness? Shall we say that they are the affections of something called Mind, which, as being the subject of them, is the real *ego?* If we say this, we manifestly imply that the *ego* is an entity. Shall we assert that these impressions and ideas are not the mere superficial changes wrought on some thinking substance, but are themselves the very body of this substance—are severally the modified forms which it from moment to moment assumes? This hypothesis,

[j] "First Principles," p. 88. [k] Ibid., p. 17. [l] Ibid., p. 36.
[m] Ibid., p. 93. [n] Ibid., p. 13. [o] Ibid., p. 17. [p] Ibid., p. 19.
[q] Ibid., p. 20. [r] Ibid., p. 23.

equally with the foregoing, implies that the individual exists as a permanent and distinct being; since modifications necessarily involve something modified. Shall we then betake ourselves to the sceptic's position, and argue that we know nothing more than our impressions and ideas themselves—that these are to us the only existences; and that the personality said to underlie them is a mere fiction? We do not even thus escape; since this proposition, verbally intelligible but really unthinkable, itself makes the assumption which it professes to repudiate. For how can consciousness be wholly resolved into impressions and ideas, when an impression of necessity implies something impressed? Or again, how can the sceptic who has decomposed his consciousness into impressions and ideas, explain the fact that he considers them as *his* impressions and ideas? Or, once more, if, as he must, he admits that he has an impression of his personal existence, what warrant can he shew for rejecting this impression as unreal while he accepts all his other impressions as real? Unless he can give satisfactory answers to these queries, which he cannot, he must abandon his conclusions; and must admit the reality of the individual mind [s]."

It is scarcely necessary to point out the many proofs afforded by this passage. "The reality of self" is "a belief which no hypothesis enables us to escape:"—"modifications" (of Mind) "necessarily involve something modified:"—it is an "unthinkable" proposition that "the personality said to underlie" "our impressions and ideas" is "a mere fiction:"—"an impression" (on consciousness) "of necessity implies something impressed:"—unless the sceptic gives an answer which is impossible "he must abandon his conclusions; and must admit the reality of the individual mind." Mr. Spencer then pronounces this belief to be "unavoidable [t]." Here then we have the most pronounced and unmistakeable assertion that the existence of the substance of Mind is an unavoidable belief, whilst, beyond all question, the "modifications" of Mind with which it is contrasted—the "impressions" which a personality is said to underlie,—are the transitory states of consciousness,—the Phenomena by which that Substance is manifested.

[s] "First Principles," p. 64. [t] Ibid.

Thus from "First Principles" alone, the doctrine of the distinction between Substance and Phenomena may be conclusively proved.

It is, however, in "Principles of Psychology," as might have been anticipated, that the doctrine is stated in its most massive and unmistakeable form. Thus, three chapters are devoted to the consideration of Body, as manifesting Dynamical, Statico-Dynamical, and Statical attributes; which are what Hamilton calls the Secondary, Secundo-Primary, and Primary Qualities of Matter. As Body is held to be distinct from these attributes or qualities—as attributes or qualities are regarded as the manifestations of Body,—it is clear that we have here a great and structural doctrine to the effect that attributes or qualities do not exhaust the contents of Body; but that behind them,—the unknown reality out of which they arise,—is a Substance or Substratum, which acts as the *nexus* that binds them together. We shall afterwards find this distinction between the attributes and their persistent *nexus* more clearly enounced; but it is plain from this statement that, so far at least as regards the *non-ego*, Mr. Spencer holds the existence of an enduring Substance, which is not the same as the qualities which make it manifest.

Thus, in a later part of the same volume,—where he is engaged in proving the doctrines of Realism,—he has been shewing that what we know as Body or material substance is "this unknown correlative of the vivid state we call pressure[u]." Elsewhere he shews that "resistance is the primordial, the universal, the ever-present constituent of consciousness[x]." Pressure or resistance then he regards as the Phenomenon, and its unknown correlative as Body or material substance. He then continues:—

"One other component of co-ordinate importance enters into the conception. That which, to our thought, constitutes a body, is that which permanently binds together those infinitely-varied vivid states the body gives us, as we change our relations to it and as it changes its relation to us[y]."

[u] "Principles of Psychology," vol. ii. p. 480. [x] Ibid., p. 479.
[y] Ibid., p. 480.

A little later he says:—

"Here, conversely, we have to note that that which persists, and therefore that which we must say exists, is the *nexus* to these ever-varying appearances[z]."

He then shews that as we walk round an object, the impressions made upon us by it are constantly changing; whereas when we place ourselves in the same relative position as before, the impressions it makes on us become as they were before. He then continues:—

"So that among all the changes there is something permanent. These multitudinous vivid states of my consciousness had none of them any permanence; and the one thing which had permanence was that which never became a vivid state of my consciousness—the something which kept together these vivid states, or bound them into a group. By an ultimate law of my intelligence I class together the states of consciousness which are like, and class apart those which are unlike. The most conspicuous contrast presented in the vivid aggregate as a whole, as well as in each of its parts, is the contrast between that which perpetually changes and that which does not change—between each ever-varying cluster of vivid states and their unvarying *nexus*. This transcendent distinction needs a name. I must use some mark to imply this duration as distinguished from this transitoriness—this permanence in the midst of that which has no permanence. And the word existence, as applied to the unknown *nexus*, has no other meaning. It expresses nothing beyond this primordial fact in my experience[a]."

On the next page we have:—

"So that these several sets of experiences unite to form a conception of something beyond consciousness which is absolutely independent of consciousness; which possesses power, if not like that in consciousness yet equivalent to it; and which remains fixed in the midst of changing appearances. And this conception, uniting independence, permanence and force, is the conception we have of Matter[b]."

He then proceeds to shew that, just as the Object is the

[z] "Principles of Psychology," vol. ii. p. 481. [a] Ibid., pp. 481, 482.
[b] Ibid., p. 483.

unknown *nexus* or Substance which binds together the changing appearances of the *non-ego*, so the Subject or *ego* is, in the same way, the *nexus* or Substance which binds together the changing states of the *ego*. His statement here is of the highest importance, inasmuch as he says that the Substance of the *ego* stands in precisely the same rank, and our belief in it has the same high validity, as the Substance of the *non-ego*. Thus all the reasoning which has shewn that the *non-ego* has an underlying substance,—which its attributes do not exhaust,—just as distinctly goes to shew that the *ego* also has an underlying substance,—which its manifestations do not exhaust. The following are his words :—

"And now before closing the chapter, let me parenthetically remark on a striking parallelism between the conception of the Object thus built up, and that which we shall find to be the proper conception of the Subject. For just in the same way that the Object is the unknown permanent *nexus* which is never itself a phenomenon but is that which holds phenomena together; so is the Subject the unknown permanent *nexus* which is never itself a state of consciousness but which holds states of consciousness together[c]."

Mr. Spencer then refers to the structural doctrine of his system, that, what we know as Mind, and currents of nerve molecules, are the subjective and objective sides of the same thing,—in his own words that "an idea is the psychical side of what on its physical side is an involved set of molecular changes propagated through an involved set of nervous plexuses[c]." And he identifies the *nexus* of the Object as the correlative of that persistence which an Object has upon the nerve-molecules; and the *nexus* of the Subject with that correlative persistence which the psychical side of these nerve-molecules in like manner manifests. The Object *nexus* he has shewn is what gives us our idea of Body, or Substance, or *non-ego;* and the Subject *nexus* is that which gives us our ideas of Mind, or self, or *ego*. Each set of nervous plexuses with its correlative psychical side, is "the per-

[c] "Principles of Psychology," vol. ii. p. 484.

manent internal *nexus* for ideas, answering to the permanent external *nexus* for phenomena. And just as the external *nexus* is that which continues to exist amid transitory appearances, so the internal *nexus* is that which continues to exist amid transitory ideas [d]."

A page or two later he says:—

"The principle of continuity, forming into a whole the faint states of consciousness, moulding and modifying them by some unknown energy, is distinguished as the *ego;* while the *non-ego* is the principle of continuity holding together the independent aggregate of vivid states [e]."

A few lines later he continues:—

"Thus the normal processes of thought inevitably originate this inexpressible but indestructible consciousness of existence beyond the limits of consciousness; which is perpetually symbolized by something within its limits [e]."

In the next chapter we have a summing up of the whole argument for the doctrines of Realism—of the existence of Subject and Object—(which it is shewn were provisionally accepted in "First Principles").—The chapters now concluded, he then says, have led us "not only to the result that it harmonises with all other dicta of consciousness, but also to the result that every adverse proposition is absolutely and in every way incongruous with them [f]."

Mr. Spencer then closes in these words:—

"Finally, then, we resume this originally-provisional assumption but now verified truth. Once more we are brought round to the conclusion repeatedly reached by other routes, that behind all manifestations, inner and outer, there is a Power manifested. Here, as before, it has become clear that while the nature of this power cannot be known—while we lack the faculty of framing even the dimmest conception of it, yet its universal presence is the absolute fact without which there can be no relative facts. Every feeling and thought being but transitory—an entire life made up of such feelings and thoughts being

[d] "Principles of Psychology," vol. ii. p. 485. [e] Ibid., pp. 487, 8.
[f] Ibid., p. 503.

also but transitory—nay the objects amid which life is passed, though less transitory, being severally in course of losing their individualities, quickly or slowly; we learn that the one thing permanent is the Unknowable Reality hidden under all these changing shapes[g]."

By the "Power" "behind all manifestations,"—the "Unknowable Reality hidden under all these changing shapes,"—he means the "Force," with its "Persistence," out of which he constructs the universe. We have seen that only on the supposition that this "Force" is of the nature of Mind,—can build up that Mind which is separated from Matter by the whole diameter of being,—can the structural unity of his Philosophy be maintained.—Accepting its unity of structure then, we have given us the two conceptions,—correlative of each other,—that, behind all manifestations of the Object, and not to be exhausted by those manifestations, is what we call Matter, Substance, or Substratum:—and (of equal validity with this), that behind all manifestations of the Subject, and not to be exhausted by those manifestations, is what we call Mind, self, or *ego*. On this rock of Realism we leave him. As the Persistence of Force in the realm of Matter forbids us thinking that that Matter can be annihilated, but can only undergo changes amongst its particles, remaining strictly Matter; as Science, in its present condition, is unable to believe that Iron can change into Sulphur, but must remain some compound of Iron; so, *à fortiori*, on Mr. Spencer's own shewing, much more impossible is it to believe that Mind can be changed into Matter; but, on the same principle of Persistence of Force, it must somewhere exist as Mind long after the Matter forming the nerve molecules has changed into other material forms. But here we are transcending Philosophy, or at least are on the border-line which limits our view. Set high on this rock of Realism by Mr. Spencer's arguments, we are enabled to see not indistinctly some of the truths heretofore held as peculiar to Revelation.

[g] "Principles of Psychology," vol. ii. p. 503.

CHAPTER X.

SUBSTANCE AND PHENOMENA REGARDED AS ONE AND THE SAME.

PROBABLY after the perusal of the last chapter, the reader will be struck with astonishment if he is shewn that the same system which then so persistently drew a distinction between the changing appearances of both *ego* and *non-ego* and that unchanging *nexus* which unites them, now presents reasoning, in a vital part of the system, which has no force whatever unless the *ego* is regarded as nothing more than its changing manifestations, with no enduring substance on which these manifestations rest, and out of which they arise. Mr. Spencer—sworn foe of Hume and Berkeley alike—putting on the garments of the former, speaking his language, enforcing his doctrine, is certainly a strange phenomenon; and one not to be accepted without overwhelming evidence. Yet such evidence it seems to me exists. It is only a short passage, but it is at the very juncture of a new line of departure; and if Mr. Spencer persists in the reasoning, the structural unity of his Philosophy must vanish.

It occurs in argument intended to prove his thesis that the Will is not free. Obviously the exact point where this question is discussed is of the highest importance; and we must look very carefully into the logical joints, in order to see that there is no gap in the argument. Single sentences have here an importance which whole chapters could not claim elsewhere. We need not, however, go into the entire argument advanced to prove the bondage of the Will: that will be done in the next chapter. For our present purpose—to learn whether Mr. Spencer confounds Substance with Phenomena—we need only take the fact that he has called the freedom of the Will "an illusion;" and doing this we become perfectly *en-rapport* with his

thought. He then advances arguments to account for this illusion. He says[a]:—

1. "To go at length into this long-standing controversy respecting the Will, would be alike useless and out of place. 2. I can but briefly indicate what seems to me the nature of the current illusion, as interpreted from the point of view at which we have arrived.

"3. Considered as an internal perception, the illusion consists in supposing that at each moment the *ego* is something more than the aggregate of feelings and ideas, actual and nascent, which then exists. 4. A man who, after being subject to an impulse consisting of a group of psychical states, real and ideal, performs a certain action, usually asserts that he determined to perform the action; and by speaking of his conscious self as having been something separate from the group of psychical states constituting the impulse, is led into the error of supposing that it was not the impulse alone which determined the action. 5. But the entire group of psychical states which constituted the antecedent of the action, also constituted himself at that moment—constituted his psychical self, that is, as distinguished from his physical self. 6. It is alike true that he determined the action and that the aggregate of his feelings and ideas determined it; since, during its existence, this aggregate constituted his then state of consciousness, that is, himself. 7. Either the *ego* which is supposed to determine or will the action, is present in consciousness or it is not. 8. If it is not present in consciousness, it is something of which we are unconscious—something, therefore, of whose existence we neither have nor can have any evidence. 9. If it is present in consciousness, then, as it is ever present, it can be at each moment nothing else than the state of consciousness, simple or compound, passing at that moment. 10. It follows, inevitably, that when an impression received from without, makes nascent certain appropriate motor changes, and various of the feelings and ideas which must accompany and follow them; and when, under the stimulus of this composite psychical state, the nascent motor changes pass in actual motor changes; this composite psychical state which excites the action, is at the same time the *ego* which is said to will the action. 11. Naturally enough, then, the subject of such

[a] The figures to these sentences are appended for purposes of reference, as will shortly appear.

psychical changes says that he wills the action; since, psychically considered, he is at that moment nothing more than the composite state of consciousness by which the action is excited. 12. But to say that the performance of the action is, therefore, the result of his free will, is to say that he determines the cohesions of the psychical states which arouse the action; and as these psychical states constitute himself at that moment, this is to say that these psychical states determine their own cohesions, which is absurd [b]."

If now we carefully analyse this reasoning, sentence by sentence, it will be found that there is, throughout its entire length, only one assertion; and that that assertion remains unsupported by any argument.

In sentence three; it is called an "illusion" to suppose that "the *ego* is something more than the aggregate of feelings and ideas, actual and nascent, which then exists." No argument whatever is advanced to prove this notion an illusion.

In sentence four;—a man "by speaking of his conscious self as having been something separate from the group of psychical states constituting the impulse," is led into "error." But again no argument is adduced in proof of this statement.

In sentence five;—"the entire group of psychical states which constituted the antecedent of the action, also constituted" "his psychical self" "at that moment." Still not an atom of argument.

In sentence six;—"the aggregate of his feelings and ideas" then "constituted . . . himself." But no proof is adduced.

The next two sentences we need not notice as they contribute nothing material, but pass on to sentence nine;—the *ego* "can be at each moment nothing else than the state of consciousness . . . passing at that moment." Here is still only assertion.

In sentence ten;—the "composite psychical state which excites the action is at the same time the *ego* which is said to will the action." Just as before we have assertion, and no proof.

[b] "Principles of Psychology," vol. i. pp. 500, 1, 2.

In sentence eleven;—"the subject of such psychical changes" "is at that moment nothing more than the composite state of consciousness by which the action is excited." Once again we have bolder and more indefensible statement, but not one iota of argument.

Finally, in sentence twelve;—the "psychical states constitute himself at that moment." One more assertion, making ten times in all,—boldness of statement being made to do duty for cogency in logic—and then Mr. Spencer leaves the matter, apparently satisfied with the semblance of reasoning he has advanced.

It is impossible to pass by without remark this exceeding weakness in dialectic. That such a master of reasoning as Mr. Spencer should actually pen twelve sentences, intended by him to stand as the proof he offers for his doctrine on one of the most hotly contested opinions in all philosophy, which sentences, when fairly analysed, are found to be nothing but a rather poor tautology, with not a grain of argument in them, seems to me utterly inexplicable; and I can only think that at this moment Mr. Spencer's logical power must have deserted him.

His procedure can be defended only on the supposition that he has, as the central column of his argument, a great axiom,—a simple deliverance of consciousness,—like the "Persistence of Force," and that, in order to make its strength appear, he amplifies the idea, and shews it in various aspects. But if there be such an axiom hidden in his reasoning why does he not state it, and so integrate his argument with the deliverances of consciousness? He is ever careful to do this at other times when he can do so,—no single crevice in the joints of his armour will he permit,—and his failure so to act in the present instance seems to shew conclusively that he knows of no such axiom,—that there is not any such backbone in his argument,—and, hence, as it is logically impossible to find throughout more than one assertion or argument, whatever it be called, it looks as if he had a singularly weak case, and knew not how satisfactorily to defend it.

Then again the statement he so confidently makes is directly in the teeth of the whole tidal wave of his thought as shewn in the last chapter. There we had before us a great bulk of evidence, derived from arguments shewn to run throughout large portions of his Philosophy,—and resting on scores of statements and arguments which were all solidly integrated into one logical unity,—to the effect that, of both the *ego* and the *non-ego*, there was, in addition to the changing states and appearances, a Substance or substratum which bound these states together;—a principle of continuity which persisted, whilst they did not persist;—a *nexus* uniting the groups in consciousness:—and we were assured that a belief in this *nexus* had a validity as high as any belief whatever. But now we are told it is quite an illusion to imagine that the *ego* is anything more than the aggregate of feelings and ideas; all notion of a uniting *nexus* drops out of sight; that which unifies our feelings and ideas is treated as if it were the mere aggregate of them; the Substance of which they are the modifications is ignored; and the modifications themselves are held to exhaust all the contents of the *ego*. That *ego* now becomes something very like Mr. Mill's "Permanent Possibilities of Sensation;"—and the healthy and thorough-going Realism, which gives such a true and noble tone to Mr. Spencer's system, sinks down into some molluscous accretion,—philosophically amorphous,—an intellectual colloid,—highly unstable,—and ready to pass into almost any shape that can be named. Perhaps, however, its utter contradiction of his system in other places will be best made apparent by placing the opposing sentences side by side.

Sentence 3. To suppose that "the *ego* is something more than the aggregate of feelings and ideas, actual and nascent which then exists"—is an illusion [c].

"The principle of continuity, forming into a whole the faint states of consciousness, moulding and modifying them by some unknown energy, is distinguished as the *ego* [d]."

[c] "Principles of Psychology," vol. i. p. 500. [d] Ibid., vol. ii. p. 487.

The first sentence asserts that the *ego* is nothing more than the aggregate of the feelings and ideas: the second sentence asserts that it is the principle of continuity which unifies these into a whole. The first makes the *ego* to be only a bundle of sensations, destroys all sense of our individuality, and is distinctly materialistic in its tone: the second makes the *ego* to be an energy unifying this bundle of sensations, asserts our individuality, and is anti-materialistic in tone. These are structural contradictions.

Sentence 4. A man is in error when he speaks "of his conscious self as having been something separate from the group" of his "psychical states [e]."

Sentence 5. "The entire group of psychical states" "constituted his psychical self" "at that moment [e]."

Sentence 6. "The aggregate of his feelings and ideas" "constituted . . . himself [e]."

These only state over again what is stated in Sentence 3 (above), and to them all the foregoing argument applies.

Sentence 9. If the *ego* "is present in consciousness . . . it can be . . . nothing else than the state of consciousness . . . passing at that moment [e]."

"The subject" is "the unknown permanent *nexus* which is never itself a state of consciousness [f]."

"The internal *nexus* is that which continues to exist amid transitory ideas [g]."

The sentence on the left is doubly contradicted. It makes two affirmations, 1. That the *ego* is nothing else than the state of consciousness. But the sentence opposite says that "the subject" (which of course means "the *ego*") is never itself a state of consciousness. One says it is nothing but a state; the other that it is never a state

[e] "Principles of Psychology," vol. i. p. 501. [f] Ibid., vol. ii. p. 484.
[g] Ibid., vol. ii. p. 485.

at all. 2. The second affirmation is that this *ego* is nothing else than a *transitory* state,—a state "passing at that moment." The second sentence opposite says that the internal *nexus* (before identified as subject and *ego*) is just that which is *not transitory*,—is the *permanent* element in the midst of the changing ideas. These are structural contradictions. As before, the one is mere Materialism; the other is honest Realism: the one is mere surface thought; the other goes down to the depths: the one is part of an empirical philosophy; the other is a structural principle of an *à priori* system.

Sentence 10. "This composite psychical state" is "the *ego*[h]."

Sentence 12. "These psychical states constitute himself at that moment[i]."

It is "unthinkable" that "the personality said to underlie" "our impressions and ideas" is a "mere fiction[k]."

Here we have another glaring contradiction. The left-hand sentence says that psychical states *alone* (Mr. Spencer's argument is worthless if he does not imply, they *alone*) constitute a man's self, and that there is no personality underlying them: but in the right-hand sentence this identical proposition is pronounced to be "unthinkable." These opposing statements belong to contradictory systems of philosophy. If we are only congeries of psychical states, we are but bubbles of time, which being pricked, will dissolve into various chemical elements, —which is crass Materialism:—but if a personality unifies and uses those states, they are only the robe which this personality wears, and that is a principle of genuine Realism.

Sentence 11 has been reserved till the last. It is a favourite mode of Mr. Spencer's reasoning to shew that an opinion he attacks cannot be expressed in language without taking the opposite theory for granted; and he makes very effective use of this mode of procedure in his

[h] "Principles of Psychology," vol. i. p. 501. [i] Ibid., p. 502.
[k] "First Principles," p. 64.

polemic against the Idealists. "Language refuses to express your thought" he cries in triumph. Now it may be that Language does not refuse to express the strange opinions he himself propounds in this reasoning on the Will, but it is certain that he uses language which implies the contradictory of what he has been saying again and again. Many times we have been told that the *ego* is only a group of psychical states,—that it is only the state of consciousness passing at that moment,—but here, in this sentence, we get back again into honest Realism, and find him speaking of "the *subject* of such psychical changes." Now *subject* is what underlies changes,—the *nexus* which unites them, the Body or substratum out of which they arise,—and this is language worthy of Mr. Spencer,—but it is the exact contradiction of much that goes before and after. The *ego* is then something more than the aggregate of feelings and ideas; it is a *subject* of which these feelings and ideas are the modifications; they are only the changing appearances, it is the persistent *nexus;* they only form the several tracts of consciousness, it is the personality which unifies Consciousness; they are only what Extension and Resistance are to Body,—the modes in which it is manifested,—it is the unchanging Reality hidden within these modes, and giving them their only conceivable foundation.

Perhaps an illustration may best shew the vast difference between these two aspects of Mr. Spencer's system. Let us ask then, "Does the aggregate of the forty counties make England?" Did the contiguous German states, before the unity of the Fatherland, make up the German Empire? Obviously not. It was the *fusion of those states into one*,—the *nexus* which binds them into a political unity—which is the German Empire. In the same way, it is not the aggregate of the states of the *ego* which makes the *ego*, but their fusion into one whole;—the *nexus* which makes out of all mental states one mental and moral empire,—a moral personality—which makes the *ego*. In many parts of his Philosophy Mr. Spencer has stated this; and if he does not hold and teach it everywhere his

Philosophy will fall in ruins. With Personality solidly established, he will find that the Will is more than the various states of mind ; it is the Power which enforces Law over the whole realm—the Executive of the *ego* commissioned to hold every mental state in strict control.

CHAPTER XI.

MR. SPENCER'S THEORY OF THE WILL.

IT seems necessary to the logical unity of Mr. Spencer's system that the Will should be held to be fast bound in the chains of Law. If the Force out of which he constructs the universe really accounts for all mental movements, obviously no place is left anywhere for free causation. But this very necessity pressing on Mr. Spencer, manifestly becomes to him a strong temptation to make the facts square with his theory, and not to shape his theory in accordance with the facts. A philosopher under the influence of a pre-conceived notion, is as liable to err as any less exalted mortal; and he may, under such circumstances, easily be seduced by appearances, and not get down to the honest, solid truth. It seemed plain in the last chapter that Mr. Spencer was reasoning in a way to which we could not accord intellectual respect; and as this is so very seldom his wont, it looks very much as if the truth were against him; and it therefore behoves us to be specially vigilant in examining the whole of his argument on the subject.

Mr. Spencer's theory of the Will is one of the most original and remarkable parts of his Philosophy. It will be remembered that he makes what is subjectively Mind to be, in its objective aspect, currents or motions of nervous molecules. He makes what we call Will, or an act of volition, to be the commingling, in one definite stream of force, of a number of those nerve currents, which, in a previous state of indecision, were colliding one against the other. It is like many rivers debouching into a lake; they come rushing pell-mell; and this confusion in the currents represents, in its subjective aspect, the time of uncertainty; until, at length, one adverse stream has neutralised another, the lake becomes calm, and the one unobstructed current flows on;

which current is the resultant of all the streams that there met. Thus it will be seen that Mr. Spencer's theory utterly denies the existence of any determining element in the Will itself; it makes the whole process to be merely mechanical, nothing more than the mixture of nerve molecules. Or to take another illustration of his theory from a contested county election. There are various polling places, where votes of various numbers are recorded;—and these votes represent the different motives with the exact quota of weight:—but *the result is arithmetically deducible from the completed polling-books;* and the delay in learning which candidate is returned arises, not from any contingency or uncertainty, but simply because time is required to arrive at the totals.

That such is Mr. Spencer's theory will be apparent from the following passages. He is describing what he calls Will, and he says:—

"On passing from compound reflex actions to those actions so highly compounded as to be imperfectly reflex—on passing from the organically-determined psychical changes which take place with extreme rapidity, to the psychical changes which, not being organically determined, take place with some deliberation, and therefore consciously; we pass to a kind of mental action which is one of Memory, Reason, Feeling, or Will, according to the side of it we look at[a]."

Again he says:—

"When the automatic actions become so involved, so varied in kind, and severally so infrequent, as no longer to be performed with unhesitating precision—when, after the reception of one of the more complex impressions, the appropriate motor changes become nascent, but are prevented from passing into immediate action by the antagonism of certain other nascent motor changes appropriate to some nearly allied impression; there is constituted a state of consciousness which, when it finally issues in action, displays what we term volition[b]."

Again he says:—

"An immense number of psychical states are partially aroused,

[a] "Principles of Psychology," vol. i. p. 495. [b] Ibid., p. 496.

some of which unite with the original impression in exciting the action, while the rest combine as exciters of an opposite action; and when eventually, from their greater number or intensity, the first outbalance the others, the interpretation is that, as an accumulated stimulus, they become sufficiently strong to make the nascent motor changes pass into actual motor changes[c]."

But in order to shew what is Mr. Spencer's reasoning on the subject, a long quotation must be made. He says[d]:—

1. "Long before reaching this point, most readers must have perceived that the doctrines developed in the last two parts of this work are at variance with the current tenets respecting the freedom of the Will. 2. That every one is at liberty to do what he desires to do (supposing there are no external hindrances,) all admit; though people of confused ideas commonly suppose this to be the thing denied. 3. But that every one is at liberty to desire or not to desire, which is the real proposition involved in the dogma of free-will, is negatived as much by the analysis of consciousness as by the contents of the preceding chapters. 4. From the universal law that, other things equal, the cohesion of psychical states is proportionate to the frequency with which they have followed one another in experience, it is an inevitable corollary that all actions whatever must be determined by those psychical connexions which experience has generated,—either in the life of the individual, or in that general antecedent life of which the accumulated results are organised in his constitution.

5. "To go at length into this long-standing controversy respecting the Will, would be alike useless and out of place. 6. I can but briefly indicate what seems to me the nature of the current illusion, as interpreted from the point of view at which we have arrived.

7. "Considered as an internal perception, the illusion consists in supposing that at each moment the *ego* is something more than the aggregate of feelings and ideas, actual and nascent, which then exists. 8. A man who, after being subject to an impulse consisting of a group of psychical states, real and ideal, performs a certain action, usually asserts that he determined to perform the action; and by speaking of his conscious

[c] "Principles of Psychology," vol. i. p. 498.

[d] The figures appended are for reference.

self as having been something separate from the group of psychical states constituting the impulse, is led into the error of supposing that it was not the impulse alone which determined the action. 9. But the entire group of psychical states which constituted the antecedent of the action, also constituted himself at that moment—constituted his psychical self, that is, as distinguished from his physical self. 10. It is alike true that he determined the action and that the aggregate of his feelings and ideas determined it; since, during its existence, this aggregate constituted his then state of consciousness, that is, himself. 11. Either the *ego* which is supposed to determine or will the action, is present in consciousness or it is not. 12. If it is not present in consciousness, it is something of which we are unconscious—something, therefore, of whose existence we neither have nor can have any evidence. 13. If it is present in consciousness, then, as it is ever present, it can be at each moment nothing else than the state of consciousness, simple or compound, passing at that moment. 14. It follows, inevitably, that when an impression received from without, makes nascent certain appropriate motor changes, and various of the feelings and ideas which must accompany and follow them; and when, under the stimulus of this composite psychical state, the nascent motor changes pass in actual motor changes; this composite psychical state which excites the action, is at the same time the *ego* which is said to will the action. 15. Naturally enough, then, the subject of such psychical changes says that he wills the action; since, psychically considered, he is at that moment nothing more than the composite state of consciousness by which the action is excited. 16. But to say that the performance of the action is, therefore, the result of his free-will, is to say that he determines the cohesions of the psychical states which arouse the action; and, as these psychical states constitute himself at that moment, this is to say that these psychical states determine their own cohesions, which is absurd. 17. Their cohesions have been determined by experiences—the greater part of them, constituting what we call his natural character, by the experiences of antecedent organisms; and the rest by his own experiences. 18. The changes which at each moment take place in his consciousness, and among others those which he is said to will, are produced by this infinitude of previous experiences registered in his nervous structure, co-operating with the immediate

impressions on his senses: the effects of these combined factors being in every case qualified by the physical state, general or local, of his organism. 19. This subjective illusion in which the notion of free-will commonly originates, is strengthened by a corresponding objective illusion. The actions of other individuals, lacking as they do that uniformity characterising phenomena of which the laws are known, appear to be lawless—appear to be under no necessity of following any particular order; and are hence supposed to be determined by the unknown independent something called the Will. But this seeming indeterminateness in the mental succession is consequent on the extreme complication of the forces in action. The composition of causes is so intricate, and from moment to moment so varied, that the effects are not calculable. These effects are, however, as conformable to law as the simplest reflex actions. The irregularity and apparent freedom are inevitable results of the complexity; and equally arise in the inorganic world under parallel conditions. To amplify an illustration before used:—A body in space, subject to the attraction of a single other body, moves in a direction that can be accurately predicted. If subject to the attractions of two bodies, its course is but approximately calculable. If subject to the attractions of three bodies, its course can be calculated with still less precision. And if it is surrounded by bodies of all sizes at all distances, its motion will be apparently uninfluenced by any of them: it will move in some indefinable varying line that appears to be self-determined: it will seem to be *free*. Similarly, in proportion as the cohesions of each psychical state to others become great in number and various in degree, the psychical changes will become incalculable and apparently subject to no law.

"To reduce the general question to its simplest form:—Psychical changes either conform to law or they do not. If they do not conform to law, this work, in common with all works on the subject, is sheer nonsense: no science of Psychology is possible. If they do conform to law, there cannot be any such thing as free-will [e]."

Before proceeding to analyse this reasoning let us first state, with sufficient clearness, what the opposite schools—Necessarian and Libertarian alike—say.

[e] "Principles of Psychology," vol. i. pp. 500—503.

The Necessarian asserts that all the operations, desires, and volitions of which we are conscious, are determined by as fixed and unalterable law as that which guides a planet through the sky; and that, just as astronomers can predict infallibly an eclipse, in the same way, if all the laws operative on the human mind were known, its course in any given circumstances could be infallibly foretold. This system denies all contingency or spontaneity; or makes them only a phrase (expressive of ignorance), which covers over the workings of law; which law, if it were known, would exhaust the entire contents of that seeming spontaneity.

The Libertarian allows that very many of our mental and volitional operations are determined by unalterable law; and that, in consequence, a very large proportion of our movements might be predicted; he allows that in a still higher region the motives which urge us in a certain course are practically overwhelming, and hence our action may here also, in almost every instance, be predicted; but he asserts that there is a region within, where this causation does not obtain, where any amount of motive may dash against the rocky citadel of the Will, and dash in vain, where the sublime personality,—the unsubduable self,—can hold on its self-chosen course in spite of every force, and where the motive does not exist which can turn it from its path. Probably also the Libertarian would allow that, as a matter of fact, very many men, perhaps the great majority, are not free; inasmuch as they have not that strength of principle which can bear back the force of outside things; but he asserts that the noblest and greatest men,—the conquerors in life's battle,—win this freedom; and that until it be won, a man is not exercising the rule which is his just prerogative.

Perhaps an illustration may make plainer the two theories. Suppose a manufacturer with a thousand looms in his charge. Each one of those looms is making up a fabric of a certain ordained pattern; and the machinery is so fixed that every thread falls into its predestined place. Now the Necessarian would say that all the move-

ments of the manufacturer's mind, his oversight of workmen, his acceptance or rejection of a proffered contract, the letters he writes, the calls he makes, the attention or the reverse he gives to his business, are, one and all, as unalterably fixed and determined by unchanging law, as all the movements of his looms are fixed to produce the pattern appointed. He would say there is no more free causation in any of his actions than there is in any of his machinery. The Libertarian, on the other hand, would allow that common sense, prudence, economy, desire of success, and other qualities, will, in nearly every instance, make a path of conduct the manufacturer will be practically certain to take; he would also allow that very much of the routine work may be committed to subordinates, and hence that a great deal of that work will be fixed and unalterable, and will thus have the precision of anything mechanical; but he asserts that all such great matters as the choice of contracts, the meeting of bills, and so forth, the manufacturer retains in his own hands; and although he will, in nearly every instance, conform to well-known laws, and allow his conduct to be determined by these, yet he stands perfectly free; and, if he chooses to pay the penalty demanded, he may go in the teeth of the most overwhelming motives, and act in a way that every calculation made in the highest degree improbable. In general no doubt a man will act so as to keep off bankruptcy, but if he chooses not to be deterred by this evil no force can restrain him; to avoid impending ruin he may think of forgery, and if he will not allow all which that crime involves to turn him from his purpose, he cannot be turned; to escape a criminal's doom he may compass a man's death, and if his will still bears up and bears back the motives which deter from that crime, he cannot be conquered by those motives; and, to go a step further, he may believe that that crime, if committed, will entail upon him eternal perdition,—to him no myth, but a reality,—but in this last dread alternative, if he will not yield, there is no known motive which can make him;—the stubborn and defiant will may stand out unchanged,

and like its chief exemplar, the Satan of Milton, may remain unsubdued by all the terrors of Omnipotence.

Now these being the fair and honest statements of the two theories, it is manifest that any criticism, from one side or the other, which can be ultimately successful, *must assail the central principle of its antagonist*, and must endeavour to present argument which overthrows it. A Libertarian attacking the Necessarian doctrine must either shew that it is false to fact, or leads to false results. Conversely a Necessarian assailing the doctrine of Autokraty, or Freedom of the Will, is bound to meet and overthrow that declaration of consciousness which seems to tell us we are free; and one who does not assail that declaration,—one who does not even refer to it,—cannot be held, either to have met the strength of the opposite argument, or indeed to have contributed anything material to the settlement of the question. As we analyse Mr. Spencer's reasoning we shall I think discover that this is his position,—that he not only does not meet the opponent's case, but that, for anything he has furnished, the matter remains where it was.

If then we carefully take to pieces the argument Mr. Spencer has submitted we shall find, I think, that there is scarcely one sentence in it which does not contain either a distinct mis-statement, a palpable fallacy, or a clear *petitio principii*. Let us take the sentences in order.

1. In sentences two and three he says that "the real proposition involved in the dogma of free-will" is "that every one is at liberty to desire or not to desire." Now as to whether this is a just statement of the problem, we will call two witnesses of unimpeachable character—Kant and Hamilton. Kant says "we only mean by liberty that *negative* property of our thinking frame not to be determined to act by physical excitements[f]." Again, he says, "The instincts of man's physical nature give birth to obstacles which hinder and impede him in the execution of his duty. They are in fact mighty opposing forces,

[f] Kant, "Metaphysic of Ethics," Calderwood's Ed., p. 174.

which he has to go forth and encounter[g]." Again he speaks of "the force reason has to vanquish and beat down all the appetites which oppose the execution of the law[h]." Clearly then Kant allows that we must desire, but says we have power to rein in our desires. Hamilton is just as clear. He speaks of man's liberty as "capable of carrying that Law" of Duty "into effect, in opposition to the solicitations, the impulsions of his material nature[i]." A few lines lower down he speaks of Liberty as a power "capable of resisting and conquering the counteraction of our animal nature." Thus Kant and Hamilton admit that we are compelled to desire, but they assert that our free-will can restrain desire.

Now these are two masters in philosophic thought. Probably they stand first among those who have taught philosophic Liberty. It is strange that in his statement of the problem Mr. Spencer should have presented it in terms which he must have known they would reject. It may have been only carelessness, but it is a serious defect in a lover of truth.

In the next sentence—sentence four—there is a *petitio principii*. Let it be remembered that Mr. Spencer has to *prove* that the will is not free, and he is now advancing arguments *which are supposed to prove it.* This is his argument:—

> "From the universal law that, other things equal, the cohesion of psychical states is proportionate to the frequency with which they have followed one another in experience, it is an inevitable corollary that all actions whatever must be determined by those psychical connexions which experience has generated."

Now what, I ask, is the argument in this sentence save an assumption of the very point at issue? Clearly he assumes that "all actions whatever," including, be it remarked, *all volitions,* are of precisely the same nature, and are held in the same bonds of fixed causation. But this is the identical proposition which Libertarians deny. Mr.

[g] Kant, "Metaphysic of Ethics," Calderwood's Ed., p. 194. [h] Ibid., p. 198. [i] Hamilton, "Lectures on Metaphysics," vol. i. 5th Ed., p. 29.

Spencer then must not assume it. He must prove it, if he can. His reasoning would be just and valid if the chain of causation which links together all physical things also extended over the whole region of the Will; but this is the very point which advocates of its Freedom deny. They say that, in addition to hereditary tendencies, education, environment and so forth, (all which together make up a sum total of pressure upon the Will), there is a free, determining element in the Will itself. They say that a man is master of his organization, not its slave; and that his Will is the instrument or Executive by which he lays hold of all his powers, and forces them to do his bidding. They say that the inner, immaterial Mind guides and fashions the outer and material nerve-current; and that Consciousness, on which Mr. Spencer's Philosophy founds, testifies to this sense of personal Liberty. Personality is as much given by consciousness as Identity; and to deny these is to insult our common sense. But Personality contains the assertion that the *ego* is the master in its house of life; for when I say I am conscious of being a person what do I mean but that the being I call myself holds, uses, and controls the powers of mind and body which I recognise as mine? In the central seat of our being therefore,—a part of the deepest and most certain deliverance of consciousness,—is this sense of mastery and ownership of all we have. Now Mr. Spencer, if he wishes to establish the Necessarian doctrine, must attack and overthrow this sense of our personal Freedom. He must not assume, as he has assumed, that the Will stands in the same category with the other operations of the *ego*. To prove that the Will is not free by taking for granted that it is bound, is a style of argument which suits some minds; but it will not pass current with any who accept nothing but what Reason forces upon them. If the bulk of Mr. Spencer's arguments had been mere *petitiones principii*, men of strong intellect would never have cared to read his writings.

The next twelve sentences, constituting nearly all the reasoning presented by Mr. Spencer on the point in dis-

pute, were analysed in the last chapter. We then saw that they contained no argument, but only one unproved assertion; which assertion we saw was the logical contradictory of statements representing a structural doctrine of Mr. Spencer's system; and moreover was itself a structural principle of Materialism, which is a system of philosophy stated by Mr. Spencer to be in utter antagonism to his doctrines. Further argument therefore can hardly be needed to overthrow what Mr. Spencer has only asserted. Appealing from Mr. Spencer here, — shallow, contradictory, materialistic,—to the wiser and greater Mr. Spencer elsewhere,—deep, logical, anti-materialistic,—we set aside nearly all he has advanced against the Freedom of the Will. If therefore we once more travel over his statements, it is not from a sense that his show of reasoning can fairly demand any more attention, but rather to allow each one of the contradictions in which he involves himself to appear more plainly.

For the convenience of the reader we once again quote Mr. Spencer sentence by sentence.

Sentence 7. "Considered as an internal perception, the illusion consists in supposing that at each moment the *ego* is something more than the aggregate of feelings and ideas, actual and nascent, which then exists[k]."

Elsewhere Mr. Spencer says this is no illusion. It is "unthinkable" that the personality said to underlie "our impressions and ideas" is a "mere fiction[l]." How curiously Mr. Spencer is obliged to contradict himself. He has just said that the *ego* is only the aggregate of feelings and ideas, but he is compelled to call them "*our* impressions and ideas," which clearly implies a sense of property and mastery. Again, feelings and ideas are only modifications of the *ego*, and a modification without something modified Mr. Spencer has pronounced "unthinkable[m]." Thus there are three contradictions to this one sentence.

Sentence 9. "But the entire group of psychical states which

[k] "Principles of Psychology," vol. i. p. 500.
[l] "First Principles," p. 64. [m] Ibid., p. 88.

constituted the antecedent of the action, also constituted himself at that moment—constituted his psychical self, that is, as distinguished from his physical self[n]."

Mr. Spencer says the *ego* or "*nexus* is never itself a state of consciousness[o]" at all; here he says it is nothing but an aggregate of such states. The first sentence cuts it clean out of consciousness; the second sentence says it is nowhere but in consciousness. The first sentence banishes it as an exile from the states of consciousness, though allowing that it is a bond or *nexus* which unites them; the second sentence asserts that it is only those very states of consciousness from which the first sentence banished it.

Sentence 10. "It is alike true that he determined the action and that the aggregate of his feelings and ideas determined it; since, during its existence, this aggregate constituted his then state of consciousness, that is, himself[p]."

If a man's "state of consciousness" is himself what is that consciousness of which he is a state? A state is a mode, now if a man is only a mode, what is the thing modified? It is not the man, for that, Mr. Spencer says, is only a mode. But there is nothing else to be modified. Thus he here presents the impossible conception of a modification with nothing modified: elsewhere he has pronounced that conception "unthinkable[q]."

Sentences 14, 15. "It follows, inevitably, that when an impression received from without, makes nascent certain appropriate motor changes, and various of the feelings and ideas which must accompany and follow them; and when, under the stimulus of this composite psychical state, the nascent motor changes pass in actual motor changes; this composite psychical state which excites the action, is at the same time the *ego* which is said to will the action. Naturally enough, then, the subject of such psychical changes says that he wills the action; since, psychically considered, he is at that moment nothing more than the composite state of consciousness by which the action is excited[r]."

[n] "Principles of Psychology," vol. i. p. 501. [o] Ibid., vol. ii. p. 484. [p] Ibid., vol. i. p. 501. [q] "First Principles," p. 88. [r] "Principles of Psychology," vol. i. p. 501.

A man is "nothing more than" a "composite state of consciousness!" Mr. Spencer is fond of shewing that his adversaries' words imply meanings that they reject; let us analyse the words he has here chosen. Now it is very hard to see how a thing can be "composite" unless there be first of all some*thing* which is compounded. The conception of putting together,—which is the idea of composite,—is unthinkable unless you have things, entities which are put together. So that behind the word "composite," though Mr. Spencer puts a "nothing," there is really "a man." Similarly with the word "state." A state with nothing of which it is a state,—a mode without anything modified,—a phenomenon with nothing behind it,—is unthinkable, if not a contradiction in terms. So too with the word "consciousness." "Consciousness" is the territory or sphere within whose limits this state exists. Now if, as Mr. Spencer says, there is nothing more than the territory, and no substance of which the territory is the extension, we have given us the impossible idea of a *superficies* with nothing of which it is the *superficies*. Thus Mr. Spencer's own words, when fairly analysed, yield that very *ego*—that unknown *nexus*—which he argues does not exist.

In sentence 15 we get a further complication. A psychical change is a change in a state of consciousness, i.e. is another state of consciousness—or the passage between two states; now "the subject" of such a change is said to be "nothing more" than a "state of consciousness," hence we learn that the subject of a state of consciousness is only a state of consciousness!

Sentence 16. "But to say that the performance of the action is, therefore, the result of his free-will, is to say that he determines the cohesions of the psychical states which arouse the action; and as these psychical states constitute himself at that moment, this is to say that these psychical states determine their own cohesions, which is absurd[8]."

If the "psychical states" constitute a man's self why does Mr. Spencer find it necessary to speak of "he,"

[8] "Principles of Psychology," vol. i. pp. 501, 2.

"himself," "his own?" Surely the only reply that can be given is that his statements are so contrary to fact that language absolutely refuses to express them. It will not co-operate in the falsehood. His polemic against Hume recoils upon himself; he then stepped forward on the lines of truth; he set up a severe standard, and by that standard he must himself be tried. He then spoke words of wisdom, he must continue to speak them, or his own wiser self will reprove him.

This ends the first part of the argument. We have seen that, from beginning to end, it is absolutely worthless for the purposes for which it was submitted.

Sentence 19. He next suggests that what he calls the subjective illusion that our will is free is strengthened by an objective illusion, produced by the extreme complexity of the amounts and directions of the motives that urge it, which complexity is such as to make its action incalculable; and he shews that in proportion as material masses are acted upon by many forces do they move in a line which cannot be predicted, and hence they seem to be free. Any trained scientific intellect will, I think, see the worthlessness of this argument. Every mathematician will say in a moment that if a million forces be acting on a body, it will obey the resultant of them all;—and that between this and freedom there is a difference as wide as logical contradictories can make it.

No doubt the flight of a bird through the air seems to be free; but it seems so only to the untrained intelligence; and any one accustomed to the severities of scientific thought sees quite clearly that every movement of its wings is held in the bonds of fixed law as completely as a planet is held in its place in the heavens. Mr. Spencer's is only an *ad captandum* argument; the illusion would impose on no student of science.

Mr. Spencer then makes one final effort—a sort of closing charge,—intended to sweep all opponents from the field. He brings out one of his great generalizations, which are, as a rule, so far-reaching in their range.

Here, however, his artillery is powerless; there is a great appearance, but no force. He says;—

"To reduce the general question to its simplest form:—Psychical changes either conform to law or they do not. If they do not conform to law, this work, in common with all works on the subject, is sheer nonsense: no science of Psychology is possible. If they do conform to law, there cannot be any such thing as free-will[t]."

In this argument it is evident we have, once again, what amounts to an assumption of the very point at issue. For the contention of the advocates of Freedom is that all psychical changes do not stand in the same category—that some conform to organic laws, but that others do not. Mr. Spencer overlooks this alleged difference,—great and all important as it is,—and treats all changes as if they were alike. That is to say he, in effect, assumes the very point he has to prove. Libertarians would say that the changes in the mind are as much fixed by law as are those of the body. A large majority of our bodily functions are carried on without effort,—and even without knowledge,—on our part. With digestion, growth, repair, secretion, respiration, the Will does not interfere. Those processes go on according to fixed law. In the same way, many of the structural mental processes are fixed—and in a sense, unalterably fixed,—by law. The chief operations of Sensation, Perception, Classification, Judgment, Reasoning, Memory, are determined by law, and cannot be altered by us. Of all this then a Science of Psychology is possible, just as a Science of Physiology is possible. But just as there are operations, physiological in their character, over which the Will has control,—just as a man has it in his own power whether he will take nourishing or injurious food,—just as he can decide whether he will take intoxicating drinks in excess, or will refrain,—just as, in scores of like instances, he practically holds in his own hands the power of life and death, of influence and destiny,—so, in the same way, there are multitudes of operations, psychological in character, where

[t] "Principles of Psychology," vol. i. p. 503.

his Will has a like control;—where he has it in his power to decide on what mental pabulum he will feed,—with what images his imagination shall be filled,—what ideals he will revere,—what class of motives shall rule him,—what shall be his mental and moral environment,—and what, in consequence, the shape he shall sooner or later assume. Probably Mr. Spencer would regard as morally reprehensible a man who gave way to intoxicating drinks, but obviously if that man has no freedom, he can have no demerit; in that case he only obeys the law of his organization, and there is no ground on which he can be reproved. The most thorough-going sensualist may justify all his practices, and is rather deserving of pity than of blame, if Mr. Spencer's position is accepted. Such an idea horrifies the moral sense of mankind; and can pass current only in an age when that moral sense has lost its finer tones.

Mr. Spencer's last argument therefore proves practically nothing. Many psychical changes,—probably the great majority,—do conform to law; and of these a Science of Psychology is possible. Many more conform in general to law, and always conform within limits. Of these too a Science is possible. Other changes there are, in the highest regions, which conform to a Law that the personal *ego* appoints and carries out. It is in this last region we come to Free Will. A Science of all the laws which operate on the Will,—a knowledge of the currents that dash against it, even if they are beaten back,—is also possible, and has great value. Mr. Spencer's dilemma therefore, although it appears to be formidable, is really destitute of all solid argument. It seems to me that, throughout his reasoning, he has not advanced one *iota* which even helps to determine the question.

This is not the place, and it is not desirable, to enter on the full discussion of the matter. It is sufficient to have set Mr. Spencer's argument aside. If all Necessarians are as feeble as he, they are not greatly to be feared. But there are two aspects of the question partly suggested by his Philosophy, which I venture to state.

1. Mr. Spencer's contention is that a man's organization is the outcome of hundreds of previous influences of heredity, education, climate, circumstances,—that this "environment" has determined his organization,—that his organization determines his character,—his character determines his motives, his motives determine his conduct,—and his conduct determines his actions. Thus Mr. Spencer contends he has no freedom. On this hypothesis then, the organization any man has determines each one of his actions. Now that organization must be substantially the same one minute that it is at the next. Its variation from second to second can be only infinitesimal. How comes it then, if organization determines actions, that in one second an action may be done, and in the very next second, with the organization not appreciably changed, the exact contradictory of that action may be resolved on? To deny this is to deny a palpable fact of consciousness[u]; a man of firm, strong will can change in a moment his entire course of life, can change it too out of pure caprice, just because he wills to change it. Now if we put a man's power at 10,000, and say that the resultant of motives and organization in favour of a certain course is 7,000, and in favour of the opposite course only 3,000, on the Necessarian theory he is fixed to the 7,000. Whence then comes that power,—undeniably existing in all men of moral strength,—which can put back the force of the 7,000, and enter on the course marked by the 3,000? The force now urging me to continue writing this criticism may justly stand for the 7,000, and the force against it only 3,000, yet if I chose to arise, and put the manuscript in the fire, surely no man would say I have not power to do it. The reason I do not so act is because common sense suggests another course; but common sense can only *suggest;* it is I who listen, and judicially decide; I obey Law, but I choose to obey it; and if I chose I could hurl common sense and every similar

[u] "A moment is room wide enough for the loyal and mean desire, for the outlash of a murderous thought and the sharp backward stroke of repentance." —George Eliot in "Daniel Deronda."

motive aside, and take a course in which pure caprice bore down the united strength of every other force. At every moment we oscillate between the two poles of moral conduct; we can set our face to which we choose; our organization remains practically unchanged, but our choice varies between the extremes of moral being. Out of the same unvarying laws how can contradictory results follow? How can the same organization, on the Necessarian theory, say "Yes" and "No" in the same breath? On the theory of Liberty this is accounted for, but on the opposite theory it remains unexplained.

2. Mr. Spencer, it seems to me, has gone a long way, quite unintentionally of course, towards shewing that the Will is free. As parts of his Philosophy form, as we have seen, a most invulnerable defence against the attacks of Materialists and Idealists, so it may be that he has also supplied some of the most solid arguments for the Freedom of the Will. We have been assured by him that Mind and Matter are at the two opposite poles of being. He says we can only think of Mind in terms of x, and of Matter in terms of y. All our thought of Mind then is represented by x, all our thought of Matter by y. This is surely the same as saying that they are x and y, two existences having no factors in common; no one thing, save Existence, being found in the one, which is also found in the other. Must not his rhetoric mean or imply that they are logical contradictories; whatever the one has, that the other has not? If they are at the opposite poles of being as he says, must they not form a perfect series of antitheses? If they have any one element in common, there, surely they can unite, and that one common element makes a bridge over the mighty chasm that divides them. But Mr. Spencer says no such bridge is possible; they are the Jews and Samaritans of the philosophical world; and his language often implies that the abyss between them is wider and deeper than any terms can set forth.

Now if they are logical contradictories, surely it must be true that whatever is found in the one will not be

found in the other. And beyond all question fixed causation does obtain in the world of Matter. Everything there is held in the iron grip of law. Then it seems to me that such fixed causation cannot obtain in the realm of Mind, but that,—as the logical contradictory of the law obtaining in Matter,—the opposite rule, of Freedom, must obtain in the realm of Mind. It can readily be ascertained whether Mind and Matter are logical contradictories in all other things. Certainly they seem to be. Matter is extended; Mind is unextended. Matter is unintelligent; Mind is intelligent. Matter has space relations and has weight; Mind has no space relations and has no weight. Matter is capable of motion or of transit in space; Mind, having no space relations, is incapable of motion. It seems to me the antitheses might go on *ad infinitum*. If, then, in every other conceivable category of thought, Mind were the proved antithesis of Matter, that doctrine would have but a very precarious hold on a strong intelligence which asserted that in this one instance, viz., of bondage to fixed law, Mind and Matter were alike. One frail spider's web spanning the almost infinite chasm between Matter and Mind—the frowning cliffs rising high on each side, needing the power of an archangel to survey them, confronting each other in solemn isolation, and this one frail link alone binding them together! the idea well-nigh becomes incredible. If separated, as Mr. Spencer assures us, they are completely separated; they must be logical contradictories with no bond of union.

3. Probably another argument of great strength in favour of the Freedom of the Will might be obtained from statements and reasoning introduced into "Principles of Biology." Mr. Spencer there shews that Life precedes organization; he adduces some evidence to shew this is a valid induction, and he attempts to prove that it is deducible from Evolution on *à priori* principles. The reasons he gives are two[x]:—1. "Organic matter" in a "homogeneous" state must precede "organic matter" in a "heterogeneous" state. But organic homogeneous

[x] "Principles of Biology," vol. i. p. 167.

matter has *life;* not till it becomes heterogeneous has it *function.* Then, 2.—"Actions are the *substance* of life;" "the adjustment of them constitutes its *form;*" "then, may we not say that the actions to be formed must come before that which forms them—that the continuous change which is the basis of function, must come before the structure which brings function into shape[y]?"

This is a statement that the inner immaterial Life determines, even in the lowest organisms, the outer material structure—that *what is in them the equivalent of Mind determines the direction of the physiological units.* Now if this is a great structural principle—characteristic of Evolution in general,—that the inner and immaterial Life determines the shape of the outer and material Force, does Mr. Spencer mean to assert that this principle holds good in the lowest ranges of life, holds good throughout the Vertebrates, throughout the Carnivora, holds good throughout large portions of the human organization, but that when it comes to the highest point of all, the human Will, the principle is suddenly reversed,—the whole tide of Evolution flows backwards, and there the outer and material nerve molecules determine the direction of the inner and immaterial Mind? This seems to me simply incredible; it amounts to hardly less than a *reductio ad absurdum.*

See how it is contrary to Mr. Spencer's favourite maxim,—the "Persistence of Force." In the Rhizopods, function determines structure—the immaterial determines the material—x controls y. This principle continues through large parts of the organic world. But, at some point in this chain, either at or before it reaches to the human Will, the principle of control is reversed, and now the material determines the immaterial, y controls x. X therefore has to a certain point been uppermost,—has been the ruling power, has possessed that quality,—essential to Intelligence—of directing movements with a design or aim in view. In other words x has up to this point possessed the nature or attributes of Mind. But at this point x is

[y] "Principles of Biology," vol. i. p. 167.

found to be undermost, it is the power that is ruled, and it ceases to have the essential quality of Mind,—of guiding Intelligence—and becomes only a force over which Matter has sway. That Matter usurps its power and place, and performs its functions. X and y have thus changed places. X retains the name, but loses the qualities connoted by that name, y vaults into the seat of x, and is x in everything but name. Thus the force x has not persisted,—there is a break in its operations which logic cannot follow,—and then it is next found in the place, and performing the functions, of y. Similarly the force y has not persisted ;—it disappears, and is afterwards found in the place, and performing the functions, of x.

Must not a scientific intellect pronounce this process unthinkable ?

Thus, without going into the whole question of the Freedom of the Will, I think it has now been made clear that, whilst Mr. Spencer has advanced not one sound argument against such Freedom, he has supplied the materials for very strong arguments which go to shew that the Necessarian theory has, even from a psychological point of view, but little to support it ; and that certainly the balance of evidence is in favour of the contrary hypothesis.

CHAPTER XII.

AN ATTEMPTED RECONCILIATION OF THESE CONTRADICTIONS.

IF the reasoning advanced in this volume has any weight, three clear contradictions have now been established between several structural doctrines of Mr. Spencer's system. The first contradiction is between his statement that Mind and Matter have between them a chasm which logic refuses to cross, and the structural fact that he does actually attempt to shew the growth of Mind out of Matter. This contradiction, it was remarked, stands good only in case the Force, out of which Mr. Spencer evolves the universe, is solely of the Material order, and Unintelligent. The contradiction disappears if it be allowed that the Force is of the order of Mind as well as of Matter; and is guided by intelligence. In that case the Force is held to contain both x and y,—both Mind and Matter;—which, in the course of its evolution, are respectively segregated; and finally take their places at the opposite poles of our conscious being. If this be granted, the contradiction vanishes; if it be denied, the contradiction stands structural and irremediable, as it seems to me; and I think, in that case, the Philosophy is a unity no longer.

The second contradiction is between the structural doctrine that the phenomena of both *ego* and *non-ego* are respectively bound into a unity by a *nexus* which persists, (belief in the reality of which *nexus* it is declared has a validity as high as any of our beliefs whatever), and the doctrine,—occurring in a most structural and vital part of the system,—that the *ego* is only an aggregate of transitory states, which aggregate of psychical states exhausts its whole content. This contradiction may also be made to disappear if the argument—about two pages—be entirely withdrawn, and the deeper and larger statement previously advanced, be adhered to. Conceding this, there is made no structural change; that argument ad-

vanced to prove the non-freedom of the Will, simply falls through; the thesis perchance may be defended by other and deeper reasoning, which is not in contradiction of any doctrine advanced, structural or otherwise; and hence this may be yielded, and the Philosophy remain in substance unaltered. If this be granted the second contradiction disappears; if it be refused, that contradiction also stands; and, until borne down by more powerful argument, it seems to me also to break up the system.

The third contradiction arises from the apparent failure of all the arguments to prove the non-freedom of the Will. Until this thesis has been established by arguments in which no logical flaw can be detected, it cannot be held to be proved; and the counter-assertion of consciousness that we are free, must, in a Philosophical system which makes consciousness the supreme court of appeal, be allowed to be more weighty than any argument which falls short of proof. But until this non-freedom of the Will be demonstrated by honest logic, it cannot be said that Mr. Spencer's system is a proved logical unity. Until this is done the "Force" and its "Persistence" are not proved to be capable of producing the universe. Here then is a contradiction,—a fatal gap—in the system, and unless this gap, along with the others, be filled up, the system, I hold, loses its unity, and hence is destroyed.

But this contradiction it seems to me may also be made to disappear. It needs only to allow that the principle shewn to obtain in the Rhizopods, and over a large part of the animated realm,—viz., that function precedes structure, that the immaterial precedes and shapes the material,—is a principle of universal extent and application: and hence that in Man,—in his Mind and Will,—the immaterial Mind or *ego*, through its executive the Will, precedes and shapes the material nerve-currents: then the whole system remains in its unity intact: it is shewn to be an Evolution originated by Mind, presided over by Mind; which Mind, when it comes to its highest stages, and grows conscious of itself, begins to display the spontaneity and power of control which have always marked it.

It will be seen that these three reconciliations hang solidly together.

The first reconciliation demands that the "Force" out of which the universe has been evolved shall be allowed to contain both Matter and Mind. But if Mind exists at all, it has one of its central seats in the human consciousness. Therefore there is a Mind in each one of us; of which Mind, the *ego* or self is the equivalent; and of which consciousness is the expression. That is to say each *ego* is a distinct Personality, is a living Mind, underlying—forming the substratum of—those transitory states of mind which occupy consciousness. But this conclusion, *here reached as a corollary from the first reconciliation*,—is that which we propose as *the second reconciliation.* But now this Mind must have the nature and attributes of Mind: it must be the guiding, directing power in the organization; it must determine the lines which the material nerve-currents shall take. Only on this supposition can it be held to be Intelligent; for it is of the essence of Intelligence that it shall understand what it wants to do, before it sets about doing it. With any Intelligence the Final cause must precede and mould the Efficient cause. If the material nerve-currents control the immaterial Mind prisoned within them, that is to deny to that Mind the prerogatives which form the very essence of Mind,—to give it nothing more than the name, to refuse it any of the characteristics connoted by that name. That makes Mind only a phantom; and the Realism which the first two reconciliations gave us disappears. Insisting that these must stand, we are entitled to insist that the Mind they posit shall have its fair share of power; shall be a reality, and not merely a name; shall be the Intelligent Personality guiding and controlling the Unintelligent material. Thus we reach *as a corollary from the two former reconciliations*, the concession we ask as *the third reconciliation;* —viz., the Freedom of the Will—the concession that the immaterial *ego* guides and controls the material nerve-currents.

Obviously then, these three reconciliations make a con-

sistent logical whole: to accept them is, so far at least, to take away what seem fatal hindrances to the system's logical unity; and, as these logical contradictions disappear, the objections presented against the system on the score of its antagonism to Revealed Religion, also vanish. Mould it into a logical unity, it becomes in complete accord with Theism. The next chapters will bring forward a further confirmation that the reconciliation suggested is in accordance with the truth.

CHAPTER XIII.

MR. SPENCER'S THEORY OF CONSCIENCE AND THE MORAL FACULTY.

WHEN going over the outline or structure of Mr. Spencer's system we saw that he makes Conscience and the Moral Faculty to be the result of the Evolution of the various powers,—Intellect, Emotion, Sociality, Sympathy, —which man has by this Evolution acquired. Just as he holds all the Logical Laws, and the operations of the Intellect, to be an outgrowth, through unnumbered organisms, of the "Persistence of Force," so, in the same way, he holds Conscience to be that faculty which prompts to a way of life that is good for the organism; which faculty has, in similar fashion, grown up, and become structural in the race. Each creature found by painful sensations that some modes of life brought it pain; and its sensibility made it recoil from these. This sensibility it handed on to its descendant; which descendant, by its experience, increased the volume of that tidal wave of nervous force which bore on to the pleasurable path. So, through myriads of organisms, the power which urges to the pleasurable grew in volume. Thus, when man came upon the scene, there was a force in him that urged him to that course of life which unnumbered creatures had found to be joyous and good. Through successive stages man has been educated; each individual having found in his experience that there was a way which led to joy and life, and that a departure from this path led to pain and death. In this way there has grown up in the race a great structural principle;—the correlative of the broadest and deepest nervous current,—which principle we recognise as the Moral Sentiment; and the force which urges us to obey it, we call Conscience. The "categorical moral imperative" of Kant is thus resolved by Mr. Spencer into the psychical correlative of that deep current of the nervous

wave which has been flowing on, in one unobstructed line, from the far-off tides of the first rudimentary sensations, ever since life had being. The tender pleading of Conscience, so like a mother's whisper, represents the plaintive voices of millions of organisms telling us that they always found joy when they obeyed it, pain when they disobeyed. The stern magisterial tones,—like the sentence of a criminal judge,—come from those unhappy ones who would not be warned, and were put to death in consequence. And the deep love which breathes in it comes from the whole past universe of life, declaring that each one found the way of right to be a way of joy; and hence that rightness of conduct, largeness of life, and maximum of pleasure are inseparably united.

That such is Mr. Spencer's theory will be manifest from the following passages. He says:—

"Generally speaking, then, pleasures are the concomitants of medium activities, where the activities are of kinds liable to be in excess or in defect; and where they are of kinds not liable to be excessive, pleasure increases as the activity increases, except where the activity is either constant or involuntary [a]."

A few pages further he speaks of

"the natural connexions between pleasures and beneficial actions, and between pains and detrimental actions [b]."

Again he says:—

"Here, however, we accept the inevitable corollary from the general doctrine of Evolution, that pleasures are the incentives to life-supporting acts, and pains the deterrents from life-destroying acts. Not only do we see that among inferior sentient creatures this guidance is undeniably efficient, but also that it is undeniably efficient in ourselves, so far as regards the functions on which life immediately depends. And we cannot here suppose that a regulative system efficient for all-essential actions has to be reversed for the actions growing out of them [b]."

Once more he says:—

"we conclude that, up to the reproductive age, pains are the concomitants of actions injurious both to the individual and

[a] "Principles of Psychology," vol. i. p. 277. [b] Ibid., p. 284.

to the species, while pleasures are the concomitants of actions beneficial both to the individual and to the species[c]."

In the "Data of Ethics," moving along the same lines, he says:—

"Always, then, acts are called good or bad, according as they are well or ill adjusted to ends; and whatever inconsistency there is in our uses of the words, arises from inconsistency of the ends. . . . . The foregoing exposition shews that the conduct to which we apply the name good, is the relatively more evolved conduct; and that bad is the name we apply to conduct which is relatively less evolved. We saw that evolution, tending ever towards self-preservation, reaches its limit when individual life is the greatest, both in length and breadth; and now we see that, leaving other ends aside, we regard as good the conduct furthering self-preservation, and as bad the conduct tending to self-destruction[d]."

A few lines later he says:—

"Moreover, just as we there saw that evolution becomes the highest possible when the conduct simultaneously achieves the greatest totality of life in self, in offspring, and in fellow men; so here we see that the conduct called good rises to the conduct conceived as best, when it fulfils all three classes of ends at the same time[e]."

A few pages further on he says:—

"And here we are brought round to those primary meanings of the words good and bad, which we passed over when considering their secondary meanings. For on remembering that we call good and bad the things which immediately produce agreeable and disagreeable sensations, and also the sensations themselves—a good wine, a good appetite, a bad smell, a bad headache—we see that by referring directly to pleasures and pains, these meanings harmonize with those which indirectly refer to pleasures and pains. If we call good the enjoyable state itself, as a good laugh—if we call good the proximate cause of an enjoyable state, as good music—if we call good any agent which conduces immediately or remotely to an enjoyable state, as a good shop, a good teacher—if we call good considered

[c] "Principles of Psychology," vol. i. p. 286. 1st Edit. (from which all quotations are made), p. 25.

[d] "Data of Ethics," [e] Ibid., p. 26.

intrinsically, each act so adjusted to its end as to further self-preservation and that surplus of enjoyment which makes self-preservation desirable—if we call good every kind of conduct which aids the lives of others, and do this under the belief that life brings more happiness than misery; then it becomes undeniable that, taking into account immediate and remote effects on all persons, the good is universally the pleasurable[f]."

He thus sums up the chapter:—

"The truth that conduct is considered by us as good or bad, according as its aggregate results, to self or others or both, are pleasurable or painful, we found on examination to be involved in all the current judgments on conduct: the proof being that reversing the applications of the words creates absurdities. And we found that every other proposed standard of conduct derives its authority from this standard. Whether perfection of nature is the assigned proper aim, or virtuousness of action, or rectitude of motive, we saw that definition of the perfection, the virtue, the rectitude, inevitably brings us down to happiness experienced in some form, at some time, by some person, as the fundamental idea. Nor could we discover any intelligible conception of blessedness, save one which implies a raising of consciousness, individual or general, to a happier state; either by mitigating pains or increasing pleasures[g]."

A few lines later on he says:—

"So that no school can avoid taking for the ultimate moral aim a desirable state of feeling called by whatever name—gratification, enjoyment, happiness. Pleasure somewhere, at some time, to some being or beings, is an inexpugnable element of the conception. It is as much a necessary form of moral intuition as space is a necessary form of intellectual intuition[h]."

All the foregoing links solidly together pleasure and goodness. He then shews that good conduct is also fixed and definite conduct. He says:—

"That progress towards rectitude of conduct is progress towards duly-proportioned conduct, and that duly-proportioned conduct is relatively definite, we may see from another point of view. One of the traits of conduct which we call immoral

[f] "Data of Ethics," p. 30.
[g] Ibid., p. 45.
[h] Ibid., p. 46.

is excess; while moderation habitually characterizes moral conduct. Now excesses imply extreme divergences of actions from some medium, while maintenance of the medium is implied by moderation; whence it follows that actions of the last kind can be defined more nearly than those of the first. Clearly conduct which, being unrestrained, runs into great and incalculable oscillations, therein differs from restrained conduct of which, by implication, the oscillations fall within narrower limits. And falling within narrower limits necessitates relative definiteness of movements[i]."

He sums up another branch of the argument thus:—

"With the evolution of society, made possible by institutions maintaining order, and associating in men's minds the sense of obligation with prescribed acts and with desistances from forbidden acts, there arose opportunities for seeing the bad consequences naturally flowing from the conduct interdicted and the good consequences from the conduct required. Hence eventually grew up moral aversions and approvals: experience of the intrinsic effects necessarily here coming later than experience of the extrinsic effects, and therefore producing its results later.

"The thoughts and feelings constituting these moral aversions and approvals, being all along closely connected with the thoughts and feelings constituting fears of political, religious, and social penalties, necessarily came to participate in the accompanying sense of obligation. The coercive element in the consciousness of duties at large, evolved by converse with external agencies which enforce duties, diffused itself by association through that consciousness of duty, properly called moral, which is occupied with intrinsic results instead of extrinsic results.

"But this self-compulsion, which at a relatively-high stage becomes more and more a substitute for compulsion from without, must itself, at a still higher stage, practically disappear. If some action to which the special motive is insufficient, is performed in obedience to the feeling of moral obligation, the fact proves that the special faculty concerned is not yet equal to its function—has not acquired such strength that the required activity has become its normal activity, yielding its due amount of pleasure[j]."

[i] "Data of Ethics," p. 69. [j] Ibid., p. 130.

A few lines later he continues :—

"The pleasures and pains which the moral sentiments originate, will, like bodily pleasures and pains, become incentives and deterrents so adjusted in their strengths to the needs, that the moral conduct will be the natural conduct [k]."

The next chapter is thus concluded :—

"The leading traits of a code under which complete living through voluntary co-operation is secured, may be simply stated. The fundamental requirement is that the life-sustaining actions of each shall severally bring him the amounts and kinds of advantage naturally achieved by them; and this implies firstly that he shall suffer no direct aggressions on his person or property, and secondly that he shall suffer no indirect aggressions by breach of contract. Observance of these negative conditions to voluntary co-operation having facilitated life to the greatest extent by exchange of services under agreement, life is to be further facilitated by exchange of services beyond agreement: the highest life being reached only when, besides helping to complete one another's lives by specified reciprocities of aid, men otherwise help to complete one another's lives [l]."

The next chapter is thus concluded :—

"Pleasure being producible by the exercise of any structure which is adjusted to its special end," it will be seen that "the necessary implication" is "that, supposing it consistent with maintenance of life, there is no kind of activity which will not become a source of pleasure if continued; and that therefore pleasure will eventually accompany every mode of action demanded by social conditions [m]."

Let us now look more in detail at his notion of the origin of the obligation of Conscience,—the "categorical moral imperative." To have a clear view of this it will be necessary to travel again over the structure of that part of his system.

In the "Data of Ethics," he is engaged in proving the structural thesis of the volume, viz.,—that the highest morality, the largest measure of life, and the maximum of pleasure, must go hand in hand. He has proved this thesis from a "Physical" and a "Biological" aspect;

[k] "Data of Ethics," p. 131. [l] Ibid., p. 149. [m] Ibid., p. 186.

and he now proceeds to prove it from a "Psychological" aspect as well. This is an outline of his argument. It was proved in "Principles of Psychology" that cognition is higher in proportion as it is further removed from reflex action, and emotion is higher in proportion as it is further removed from sensation. Taking this as our criterion of judgment, it is plain that moral conduct is higher than immoral conduct, inasmuch as, in moral conduct, larger and grander cognitions, and deeper and richer emotions come into play than are aroused in immoral conduct. Thus moral conduct is the outcome of more advanced and stronger life than immoral conduct; and hence guidance by the complex feeling of moral sentiment conduces more to welfare than guidance by the less complex feeling of immorality. Hence it follows that, *as guides to conduct*, the feelings have authorities proportionate to the degrees in which they are removed, by their complexity and their ideality, from simple sensations and appetites. There arises a certain presumption in favour of a motive which refers to a remote good, in comparison with one which refers to a proximate good. This presumption in favour of a more distant good, (the good of moral approbation,) when placed in antagonism with a nearer good, (the immediate gratification of sense,) he contends gives us the sense of duty or oughtness,—the "categorical moral imperative." Its first originators he holds to be parents, tribal and other laws; and a belief in the anger of a divine being. Moral feelings are the last to arise; and they slowly disentangle themselves from other motives. It is then shewn that the moral cognitions are the highest and most remote from reflex action and sensation. Justice is higher than generosity;—justice is the more complex and larger term,—the structural principle of all society,—whereas generosity is the mere exuberance and play of a relatively undeveloped nature. Thus the sense of moral obligation arises. Accumulated race experiences have produced the conviction that guidance by feelings which refer to remote and general results is usually more conducive to welfare than guidance by feelings to be immediately gratified. Ho-

nesty, truthfulness, diligence, economy,—which promise a remote good,—have been habitually found to be better guides than the opposite qualities,—which promise a proximate good. This experience having been universal throughout a remote ancestry, those promptings which urge to a remote good, (i.e. to moral action,) come universally to have authority. The monitor which has led right in ninety-nine cases out of a hundred establishes a character for right guidance. In this way, Mr. Spencer contends, the moral sense has been evolved. The compulsion,—the imperative—in the moral sense, he holds with Mr. Bain has been evolved out of the punishments inflicted by law; and he contends that as conduct becomes truly moral, this sense of compulsion dies away; the moral obligation fades, and the sense of duty passes out of sight in the joy which right conduct gives. Righteousness becomes purely pleasurable; its mandates are the laws which produce happiness; and the joy of obeying them becomes the supreme delight of the nature.

That the above is a true account of Mr. Spencer's notion of the origin of Conscience and the Moral imperative will be sufficiently apparent from the following passages. He says:—

"After this explanation will be apprehended a truth otherwise set forth in the *Principles of Psychology*. Mind consists of feelings and the relations among feelings. By composition of the relations, and ideas of relations, intelligence arises. By composition of the feelings, and ideas of feelings, emotion arises. And, other things equal, the evolution of either is great in proportion as the composition is great. One of the necessary implications is that cognition becomes higher in proportion as it is remoter from reflex action; while emotion becomes higher in proportion as it is remoter from sensation[n]."

In the same chapter we have:—

"Observe, then, what follows respecting the relative authorities of motives. Throughout the ascent from low creatures up to man, and from the lowest types of man up to the highest, self-

[n] "Data of Ethics," p. 104.

preservation has been increased by the subordination of simple excitations to compound excitations—the subjection of immediate sensations to the ideas of sensations to come—the overruling of presentative feelings by representative feelings, and of representative feelings by re-representative feelings. As life has advanced, the accompanying sentiency has become increasingly ideal; and among feelings produced by the compounding of ideas, the highest, and those which have evolved latest, are the re-compounded or doubly ideal. Hence it follows that as guides, the feelings have authorities proportionate to the degrees in which they are removed by their complexity and their ideality from simple sensations and appetites[o]."

A few pages later he says :—

"The general truth disclosed by the study of evolving conduct, sub-human and human, that for the better preservation of life the primitive, simple, presentative feelings must be controlled by the later-evolved, compound, and representative feelings, has thus come, in the course of civilization, to be recognized by men[p]."

He then comes to the genesis of the moral consciousness :—

"Without explicitly saying so, we have been here tracing the genesis of the moral consciousness. For unquestionably the essential trait in the moral consciousness, is the control of some feeling or feelings by some other feeling or feelings[p]."

This is proved to be true of animals and of pre-social man :—

"And here we are introduced to certain facts of profound significance. This conscious relinquishment of immediate and special good to gain distant and general good, while it is a cardinal trait of the self-restraint called moral, is also a cardinal trait of self-restraints other than those called moral—the restraints that originate from fear of the visible ruler, of the invisible ruler, and of society at large. Whenever the individual refrains from doing that which the passing desire prompts, lest he should afterwards suffer legal punishment, or divine vengeance, or public reprobation, or all of them, he surrenders the near and definite pleasure rather than

[o] "Data of Ethics," pp. 108, 9. [p] Ibid., p. 113.

risk the remote and greater, though less definite, pains, which taking it may bring on him; and, conversely, when he undergoes some present pain, that he may reap some probable future pleasure, political, religious, or social. But though all these four kinds of internal control have the common character that the simpler and less ideal feelings are consciously overruled by the more complex and ideal feelings; and though, at first, they are practically co-extensive and undistinguished; yet, in the course of social evolution they differentiate; and, eventually, the moral control with its accompanying conceptions and sentiments, emerges as independent [q]."

At a later stage in the argument he says:—

"The motive causing a generous act has reference to effects of a more concrete, special, and proximate kind, than has the motive to do justice; which, beyond the proximate effects, usually themselves less concrete than those that generosity contemplates, includes a consciousness of the distant, involved, diffused effects of maintaining equitable relations. And justice we hold to be higher generosity [r]."

He then discusses the rise of the feeling of moral obligation in general:—

"One further question has to be answered—How does there arise the feeling of moral obligation in general? Whence comes the sentiment of duty, considered as distinct from the several sentiments which prompt temperance, providence, kindness, justice, truthfulness, etc.? The answer is that it is an abstract sentiment generated in a manner analogous to that in which abstract ideas are generated [s]."

Again he says:—

"But there is another element—the element of coerciveness. This originates from experience of those several forms of restraint that have, as above described, established themselves in the course of civilization—the political, religious, and social. To the effects of punishments inflicted by law and public opinion on conduct of certain kinds, Dr. Bain ascribes the feeling of moral obligation. And I agree with him to the extent of thinking that by them is generated the sense of compulsion which the

[q] "Data of Ethics," pp. 114, 115. [r] Ibid., p. 123. [s] Ibid., p. 124.

consciousness of duty includes, and which the word obligation indicates. The existence of an earlier and deeper element, generated as above described, is however, I think, implied by the fact that certain of the higher self-regarding feelings, instigating prudence and economy, have a moral authority in opposition to the simpler self-regarding feelings: shewing that apart from any thought of factitious penalties on improvidence, the feeling constituted by representation of the natural penalties has acquired an acknowledged superiority. But accepting in the main the view that fears of the political and social penalties (to which, I think, the religious must be added) have generated that sense of coerciveness which goes along with the thought of postponing present to future, and personal desires to the claims of others, it here chiefly concerns us to note that this sense of coerciveness becomes indirectly connected with the feelings distinguished as moral[t]."

He then says,—"the feeling of obligation" will "fade,"—and continues:—

"This remark implies the tacit conclusion, which will be to most very startling, that the sense of duty or moral obligation is transitory, and will diminish as fast as moralization increases[t]."

On the next page:—

"Evidently, then, with complete adaptation to the social state, that element in the moral consciousness which is expressed by the word obligation, will disappear. The higher actions required for the harmonious carrying on of life, will be as much matters of course as are those lower actions which the simple desires prompt. In their proper times and places and proportions, the moral sentiments will guide men just as spontaneously and adequately as now do the sensations. And though, joined with their regulating influence when this is called for, will exist latent ideas of the evils which nonconformity would bring; these will occupy the mind no more than do ideas of the evils of starvation at the time when a healthy appetite is being satisfied by a meal[u]."

The chapter closes thus:—

"And this brings us to the psychological aspect of that conclusion which, in the last chapter, was reached under its biologi-

[t] "Data of Ethics," pp. 126, 127. [u] Ibid., pp. 128, 129.

cal aspect. The pleasures and pains which the moral sentiments originate, will, like bodily pleasures and pains, become incentives and deterrents so adjusted in their strengths to the needs, that the moral conduct will be the natural conduct[x]."

We now have Mr. Spencer's moral system before us, and in the next chapter proceed to an examination of its main principles.

[x] "Data of Ethics," p. 131.

CHAPTER XIV.

AN EXAMINATION OF HIS THEORY OF CONSCIENCE.

BEFORE proceeding to remark upon this theory let us briefly note the position we reached in a previous chapter. We then saw that to make Mr. Spencer's Philosophy a logical unity three points must be conceded :—

1. That the Force, out of which the universe has been evolved, is Mind as well as Matter, Intelligent as well as Unintelligent.

2. That the *ego* is a Personality,—a living Mind,—having a substratum which underlies the aggregate of its states.

3. That the Mind in the Force out of which the universe has been evolved precedes and shapes the Matter in that Force; Evolution being the name given to the shaping process.

These three propositions seem to me to fit solidly and structurally together; and to be in themselves reasonable, and *à priori* probable. The first accounts for the dualism we everywhere observe. The second accepts the testimony of Consciousness as to the Personality of the *ego*. The third puts the Mind or Intelligence,—which the first asserts, to whose existence the second bears witness,—at the back of, and as the Cause of all movements in the universe, just as we know it to be in all movements over which we have control.

The strength and logical consistency of these propositions will perhaps be made more apparent if we place beside them the propositions which must be maintained if these are denied. These will be :—

1. That the Force which has produced two entities, which entities have between them a chasm our faculties cannot cross, yet contains only one of these entities, and is quite destitute of the other.

2. That the *ego* is not a Personality, has no substratum

underlying its changing states, but contrives to present modifications when there is nothing to be modified.

3. That as there is no Mind in the Force from which the universe came; and as no Mind has ever entered it at any time, there is consequently no Mind in the conceptions of a Shakspere, or a Newton, but all are explicable as the offspring of Unintelligent Force.

It can hardly need argument to shew which is the more consistent scheme of the two. Accepting then, at any rate provisionally, the hypothesis that Mind is behind all things, and the Cause of all things; and holding this hypothesis to have a higher philosophical warrant than the opposite theory; we may now advance to the consideration of Mr. Spencer's theory of Conscience. To the three propositions we have accepted, let us now add a fourth:—

4. That as we have decided the Force to contain Mind, and to be guided by Intelligence as it proceeded to build up our *ego*, so, in the same way, that Force also contained Moral Qualities, and was guided by Righteousness, Benevolence, and Love.

The Force which we have now decided to be Intelligent is admitted by Mr. Spencer to be such that "we are unable to think of limits to the presence of this Power[a]." We have therefore given us,—as that out of which all things have been evolved,—an Intelligence to which no limits can be set; and we have seen just warrant for regarding this Intelligence as the Cause of all the operations carried on in our universe. Now when *our* Intelligence works—when it fashions any mental fabric—we can generally trace another element in the work,—pervading its intellect as fire pervades iron;—which element we feel compelled to decide is not of the intellectual order. Thus Mr. Spencer, replying to a critic, said "his course is one for which I find no fit epithet in the vocabulary I permit myself to use[b];" from which we may fairly infer that Mr. Spencer read in the critic's language something more than logic, something which did not bear an intellec-

[a] "First Principles," p. 99.

[b] Essays, Replies to Criticisms, 1st Edit., vol. iii. p. 340.

tual stamp, something which he must call an offensive moral quality. No doubt the critic's language more than justified Mr. Spencer's gentle and courteous reply. Obviously this instance might be multiplied by thousands, until we obtained the materials for a broad and safe generalization ; to the effect that, in nearly all extended operations of our minds, other qualities recognizable by us as moral, pervade the fabric those operations fashion, run along the lines of their logic, and dwell within their limits. It is sometimes said that character is shewn in the handwriting, but it is certain that a man's character projects itself into all the fabrications of his intellect.

If we enquire the reason why this moral element runs throughout our work, we shall, I think, find that there is something in us which makes us take care that it shall be present ; and that all our intellectual work shall only serve as the clothing in which this moral element shall be embodied. Perhaps we accept the maxim, " Power to its last particle is duty ;" at any rate we admit that through every hour of our working life some noble purpose ought to run. Mr. Spencer, as we saw, cannot permit himself to use language of great severity ; which means that he requires all his mental productions to be informed by gentleness, and consideration for others. In the same way, I am persuaded, he requires his toil to be informed by truthfulness, justice, tolerance, humanity, benevolence, by that which helps forward the progress of the race, by that which leads others to a higher and larger life. He requires himself, I am sure, to conform to his own ideal ; and at least to strive after that noblest and most perfect life, which exerts an influence over the widest area, endures the longest, is most fruitful in result, is charged with the largest inspirations, and moulds collective humanity of the greatest and most stately type. Below this level, at any rate of aspiration, Mr. Spencer is, I am sure, unable to sink.

His sense of justice will also, I think, allow that the work which any Intelligence ought to do must be reasonably commensurate with the Powers of that Intelligence.

Assuming then that the Intelligence we are now driven to posit as the Cause of all things is as good as many noble men—we are forced, along these lines, to require that the work of this Intelligence shall display Truthfulness, Justice, Tolerance, Humanity, Benevolence, Desire of Progress, Desire to secure to others the longest and richest possible life; and that it shall display these on a scale, and produce out of them a result, worthy of such Powers, when dwelling in an Intelligence to which no limits can be set.

Now, as Mr. Spencer requires his intellect to conform to the law of his moral nature,—as the intellect is required by him to be the humble servitor of his moral nature, waiting on its bidding, and moving only along the ways it permits,—we are fairly justified in holding that he deems the moral qualities to be higher, and of greater worth, than the intellectual qualities. This is indeed a structural principle in the "Data of Ethics." The moral qualities are more complex and more highly evolved than the intellectual qualities. Evidently also, in his actions, the moral intention precedes, in order of time, and in order of causation, the intellectual fabric. He cannot permit himself to use ungentle words, means that the gentle intention in his nature precedes the words that manifest it; and that it stands to those words in the relation of causality. In other words, as the "I" in Mr. Spencer is behind his organization and controls it, so also, behind the control, there is the gentle intention,—the moral purpose;—which moral purpose is in him the causal force.

Obviously also, if in him the moral intention did not stand prior in order of time, and causal in order of relation, he would not be as good as he now is. If he could permit himself to use severe language,—if the moral intention were changed in direction, or if the intellectual were allowed to shape the moral,—he could not entertain the sense of self-respect he now has. Doing that he must sink in his own estimation. The Intelligence then, as good as he, which we now posit as the Cause of all things, must similarly have placed the moral intention

at the back of, and as the cause of, its intellectual clothing; and the whole fabric of Law in the universe,—which represents *only the intellectual aspect* of the Power which produced it,— can be *nothing but a broad road, made for the purpose of carrying out a Moral Intention*, worthy of the character of the Being or Intelligence from whom the whole proceeded.

Before passing on let us note the strength of the argument which proves this thesis. It may seem to some,—so far have we travelled,—that we must have made some huge assumption. Let us see then the plain, logical steps by which we reach the position.

1. We have seen that Mr. Spencer's Philosophy falls into utter ruin, and is only a congeries of contradictory doctrines, unless it be allowed that the Force out of which the universe has been evolved contained Mind as well as Matter,—was Intelligent as well as Unintelligent.

2. Throughout all our mental fabric, we recognise the presence of another element, which we call Moral; which element we recognise is prior in time, and causal in relation, to any intellectual work we permit ourselves to do. Any one who allows his moral conduct to be shaped by his intellectual operations we are compelled to regard as not morally good.

3. To be able therefore to predicate of any Intelligence moral goodness equal to our own we are forced to require that the Moral Intention of that Intelligence shall be at the back of, and shape its intellectual operations [c].

Here we reach the same point as before. Manifestly then the only assumption we have made is that the Intelligent Cause of the universe stands, at least, as high in point of goodness as ourselves. No modest man will dream of denying this. Obviously any man who does deny it lays himself open to the heavy artillery of John Foster's logic. One who says that the Intelligent Cause

[c] This may be held to imply the "Personality" of the Intelligence, which Personality Mr. Spencer holds to be unthinkable. His arguments on this point are dealt with,—and as I hold disproved,—in the Second Part of this volume, on "The Unknowable."

of all things is not as good as himself, is no Agnostic, but an Atheist; and may justly be left to the ridicule and scorn of mankind.

But if this moderate assumption be granted, we arrive at once at the position that Moral Intention is at the back of, and the Cause of, that Intellectual Operation which is prior and causal to all the movements of Matter in the universe.

We thus have before us a Power, which may be called Omnipresent, in which we trace a hierarchy of three degrees—viz., 1. Prior in time, supremely causal in relation, Moral Intention. 2. Derivative from the first, but causal of the next stage, Manifested Intelligence. 3. Derivative from the last, Movements of Matter.

Now since in this Supreme Causal Intelligence, Moral Intention stands highest, and since this Intelligence must estimate the relative value of all obtainable results in terms of its own nature, it is only following out the same line of thought to say that the Work it must aim to construct will be the same Moral Intention in others. It must aim to raise up a race of Intelligences in whom Intellect is only the vassal which carries out the decrees of Goodness [d].

In proceeding to carry out this intention it is quite possible that the supreme object in view is not at once aimed at; or that, at any rate, the aim is not perceived by us. This is likely to be the case in proportion as the work is great and varied. It may be a vast conception which demands for its embodiment, so that it shall answer to the Causal Purpose, the services of untold myriads; and it may be that these will need careful training and leading, before they arrive at that largeness and fineness of nature which can make them fit constituents in the mighty plan. A Handel who has conceived in his brain all the harmonies of the "Messiah,"—who holds in lucid and ordered unity each bar of the entire strain,—will yet be

[d] "The highest act of creation is to produce free, responsible beings. We may be sure that a perfect God will perform perfect work, and create these free beings."—"The Supernatural in Nature," p. 469.

glad of all voices of sweetness or of power that can be used to express his thought, and thus make evident to others the vast volume of melody which is already present in imagination to him. And if he were greater he would gladly press the mighty orchestra of nature into his service; and out of whirlwind and tempest, thunder roll and ocean roar, obtain elements of greater musical majesty than he can at present command.

But how will he proceed to embody his thought? Manifestly if he can obtain *one principle* which will, in its final sweep, reach out to everything he desires, that one principle will be the mode he will adopt; it will express the line along which his thought and purpose will run. He will begin from the first to walk along one way, to follow one mode; and he will continue adopting this mode until he reaches the highest and final aim. That aim will be from the very first the centre of all his effort; around it there may at first be gathered many extraneous matters, which are only important as being processes necessary to reach the final end; as stage after stage of development is passed these fall away as being only the clothing of that which is desired; until at length the heart and core of the whole matter are disclosed, and the aim, ever pursued, is finally attained.

That aim, in the case of our universe, we have seen cause to conclude is the raising up of a race of Intelligences to whom Intellect shall be only the clothing and sphere in which Moral Goodness is embodied.

A Moral Intention, then, is the nucleus and cause of all that we see around us. Now as this moral purpose has a path by which it has pursued its end—a road along which it has gone,—manifestly that purpose will be interpretable in terms of our intellect: we can follow along its road by means of our logic. Our intellect may be able to exhaust the whole of the intellectual contents of that purpose; but all that intellect can see will be only the clothing of moral design. An explanation of the whole process in terms of the intellect, by no means evacuates that process of a higher and moral meaning.

Mr. Spencer, as we saw, makes Conscience and the Moral Faculty to be the mental correlative of the last outcome of that current of the nervous wave which has been flowing on in one unbroken line from the rudimentary sensations of the first organism. Now, if we conceive the Causal Intelligence setting that wave in motion, *knowing and intending the results that would flow from it*, we are able, as it seems to me, to accept Mr. Spencer's Theory, *as expressing the intellectual aspect of the process;* and yet hold that the intellectual aspect is *only the clothing of a higher purpose;*—that *a Moral Intention is behind all*, and *the cause of all;*—and that the intellectual unity we mark in the process arises only from the fact that the Causative Intelligence chose, from the very first, one all-comprehensive plan, and has steadily proceeded to carry it out.

This notion, viz., that Conscience and the Moral Nature were always the mark aimed at,—Sensation and Intellect being only called up as their clothing, the cocoon put around the embryo from which a higher life was to spring; —seems to me to have high philosophical warrant; for the following five reasons, in addition to those already advanced:—

1. It is in entire congruity with all other philosophical deliverances. It harmonises solidly and structurally with the entire system that Mr. Spencer has constructed. Let that system only be made a logical unity, so as to satisfy the claims of philosophic completeness, it then, of necessity, presents a broad and unyielding base, which fits in with this notion of Conscience, as exactly as a great scientific generalization fits the facts of which it is held to be the expression. A universe in which Mind is proved to exist is incomplete until another element be supplied;—the structure lacks the coping-stone which will give grace and meaning to the whole:—supply the coping-stone of Moral Design, as a principle structural throughout, but made manifest in its unalloyed perfectness at the apex, you then link into one magnificent unity the whole universe: and mechanical and chemical forces, molluscs and reptiles, the powers and intellect of man,—and the whole course of

human society, are fused into one homogeneous and glorious whole, shewing a sum total of result worthy of the Powers of that Moral Intelligence from whom the whole proceeded. The strength of the evidence derived from structural consistency will however be shewn at length in the Second Part of this volume.

2. If Conscience be not anterior in design to Sensation and Intellect, how comes it that its authority—the authority of the moral canons—is felt to be much more binding upon us than the authority of the intellectual canons? Mr. Spencer makes it to be far later in time,—so far as its appearance is concerned,—than the Logical Laws, how comes it then that the later existence wields supreme authority? If it be said that a finely-toned conscience feels the intellectual laws as binding as the moral, we grant it. But supposing that man's intellect wishes to disobey the law—how does he reprove and punish it? *By bringing it before the tribunal of Conscience.* How then can it be explained that a faculty which is much later in origin is yet prior in authority? Why are the aristocracy whose roots are deep in the history of thousands of years, required to bow to the dictates of an existence of yesterday? How can this anomaly be explained, save on the supposition that although later in time it was prior in design,—was always the mark aimed at, was meant from the first to occupy the throne? Hence no sooner does it appear than all existences recognise its authority, and if it raises any to its regal seat, they reign only in virtue of the sovereignty it has conferred. "Before Abraham was, I am," said One who asserted a more ancient existence; and Conscience may also say, "Before Intellect was, I am, the Original Fountain and Source of Power, and the days of my being have been from everlasting."

3. There are many who hold Conscience and the moral imperative to be a simple, native deliverance of that consciousness which Mr. Spencer has taken pains to assure us is our final court of appeal. It is not easy to determine Mr. Spencer's opinion on this point. Probably he rejects this as an unproved dogma, but he admits that only by

its guidance can the race attain to the millennium he has sketched. To him, however, that voice is probably only the blending of the voices of unnumbered organisms; and is not this, *plus* an originating Divine Authority. But cases might easily be cited where, without this fine sense of right, the instinct of self-preservation would bear down that diviner instinct which dictates self-sacrifice. The law of self-preservation Mr. Spencer admits to be the supreme law of life, how then can this supreme law be set aside? But noble men have set it aside, and will do so again; and will laugh to scorn any ethical system which cannot justify their action. They hear an inward voice; they follow a divine guide; they stand before a more exalted tribunal: to them the moral imperative is infinite in extent, and absolute in authority; and is none other than the voice of God. Now, on the theory of the priority of conscience, this instinct is explained,—but on Mr. Spencer's theory no reason can be given why conscience should always rule. That conscience is not always wise—as the conscience of a Turcoman which commends stealing,—does not destroy its authority; the king has a right to rule in the state although perhaps he is a very stupid monarch. A boy blunders over the Pons Asinorum, yet nevertheless the authority of Euclid is not set aside. The moral imperative remains the binding law, however men may err in interpreting its dictates. Their error shews their need of enlightenment; but it does not depose from its throne the faculty that is born to rule.

4. Again, the difference observable between the reception of a new moral truth, and of a new intellectual truth, seems to me a clear proof that the moral faculty is prior in design and authority, although perhaps later in its appearance. For when any one is able to point us to a moral law we have not observed, and to bid us keep it in future, have we not always at such time a sense of shame; for we feel keenly that we ought to have known that law, and to have been amongst its firmest supporters? That is to say we recognise that that law has been all the time within us. It is no stranger,—it comes with autho-

rity to a well-recognised home. Far otherwise is it with any new truth of science. We welcome that as a valued addition to our mental powers, and as increasing our mental range. But it never occurs to us that we knew it, or ought to have known it, before. We feel no shame on account of our ignorance. It comes in like a welcome guest of our own rank in life. But an unknown moral truth enters our conscience with a glance of displeasure, like a king long defrauded of his rights. Now why this difference in treatment? On Mr. Spencer's shewing the intellectual law is long prior to the moral; it represents a tidal wave which had gathered strength and volume long before the moral element came into being; how comes it then that whilst the intellect acts like a friend soliciting our attention, the moral sense acts like a ruler enforcing our obedience? I can conceive no valid answer save that already given, viz., that the moral canon represents the tidal wave of greatest age, depth and volume within us; and hence,—as covering the whole area of our nature,—the materials for right action on all moral questions are ever present; and may by diligence and humility be turned to effective use. We are moral agents before we are intellectual agents: morality in us precedes intellect: the distinctions between right and wrong are the deepest things within us: they are the formula we ought most readily to use. Hence ignorance of conceptions later in origin we excuse; but ignorance of those that lie deepest of all brings us shame. The argument is strengthened by reflecting that as the standard is raised the same sense of shame is felt. A tyro in science feels no compunction if he does not know elementary principles; but a man of science who is proved to be ignorant of some truth structural in his system cannot keep back the sense of shame; for to him that ignorance comes as a distinct *moral* defect. He ought to have known it; and but for the scientific sin of blundering, or carelessness, or misty scientific conceptions, he would have known it. Through the whole range of life, then, the principle holds good, that proved ignorance of a moral principle,—or proved incapacity in applying

it,—brings shame; whereas the like ignorance of a new scientific truth, when dissipated, brings only a sense of pleasure. It seems to me impossible to explain this anomaly, save only on the supposition that the moral canon lies embedded in the deepest and oldest part of our conscious being,—is the root from whence the intellectual canon springs, and from whence it obtains its authority. A further confirmation of this proposition will be found in the next argument.

5. Probably Mr. Spencer would attempt to explain some of these difficulties by stating his theory of the genesis of the moral faculty. To my mind that theory is itself a most weighty argument against the derived origin of Conscience, and in favour of the notion that it is native, primal, and supreme in authority. As we saw, Mr. Spencer shewed that intellectual cognitions and emotions became higher in proportion as they were further removed from reflex action and sensation. Consequently, moral conduct is higher than immoral conduct; inasmuch as, in the former, larger cognitions, deeper emotions, come into play, than in the latter. Guidance by the more complex feeling given by moral sentiment conduces more to welfare than guidance by the simpler feeling of immorality. Hence it follows that, as guides to conduct, the feelings have authorities proportionate to the degrees in which they are removed, by their complexity and their ideality, from simple sensations and appetites. There arises a certain presumption in favour of a remote good, in comparison with one which refers to a proximate good. Honesty, truthfulness, diligence, economy,—which promise remote rewards,—have been habitually found safer guides to conduct than the opposite qualities—whose rewards are immediate. This experience has become structural in the race; and hence the moral sense,—representing all moral qualities in one,—has come to supreme authority.

Now let us examine this strange anomaly of the most attenuated cognition or emotion having a higher authority than the one nearest to sensation. The moral sense, Mr.

Spencer admits, has more force on its side than the simple appetites. In some way then it must represent the deepest and strongest nerve-current. As the virtues represent broader and deeper currents than the vices, that current which is the union of all the virtues must be broader and deeper still. How then can it have acquired this volume and depth which the currents of the intellectual powers have not? How can it, so much later in time, so far exceed in volume the currents long anterior? How indeed, save on this supposition that it has all along been the most ancient current—that the forces which make for right have been flowing from the first dawn of existence —that it was their volume which filled out the currents of the intellectual laws—that it is their volume which swells to the wider dimensions of the moral canons,—and hence they bear down with overwhelming force on every barrier cast in their way. Explain it on this supposition, all is consistent; deny it, you must explain how what is later in time comes to be of greater volume, and of higher authority.

Let us look at the matter in another fashion. The most remote cognition, the most refined emotion, is, according to Mr. Spencer, of higher authority as a moral guide—a guide to conduct—than the most elementary truth, the most rudimentary sensation. Which is the same as saying that the law as to precedence and validity which obtains amongst our sensations and our cognitions is precisely that which does *not* obtain in the moral realm. For in our cognitions, no wise man, least of all Mr. Spencer, will maintain that reasoning is valid and safe just in proportion as it is further removed from the primary laws of thought. Shall we say the first propositions of Euclid are doubtful, but the last results of the calculus, and still more of the "Fourth Dimension," are of much higher certainty,—are much safer as a guide to conduct? We must invert that statement if we speak of the intellect, but that is exactly the law which does obtain in the moral realm. Similarly with the emotions. Can we say that the refined sense of an artist—that one delicate shade

is better than another—is a canon of more unquestionable validity than that sense in all men which tells them that green is restful to the eye. Yet this is what, so Mr. Spencer says, the moral canon teaches. The common primary sensations, the first simple cognitions, are of no authority *as guides to conduct*, in comparison with the highly remote, refined, and complex sentiment we call the moral sense. Now can such a strange anomaly be found anywhere else, in any science whatever? Is it not peculiar to the moral realm alone? Will any Palæontologist say that his most remote conjectures as to the character of an obscure fossil are of higher authority than the central, fundamental principles of his system? In everything else, central principles are the most certain; but, in seeking *guides to conduct*, the further you go afield, —the wider your range, the more remote your aim,—so much the more nearly do you approximate to the right. That anomaly needs explanation, which I do not think any part of Mr. Spencer's system can give, but with Theists, the explanation lies close at hand. That explanation is that the Supreme Moral Intelligence made man; and sought to train him as a child of immortality. For this purpose He placed various powers within him; and arranged that *his reward should be greater in proportion as he preferred a more remote good.* In this way He has led us up from the simple pleasures of sense, to the higher and more remote pleasures of justice. We are still under training, hence,—as guides to conduct,—the more remote rewards remain of higher authority than the proximate good. In this way we are learning to live by faith,—to endure "as seeing Him who is invisible[e]," and to acquire the high moral tone, the settled moral intensity, which long waiting and striving cannot fail to bring. Looked at in this light the anomaly has a peculiar majesty and beauty. It brings us to the same point as before, viz.:—that although the moral sense is complex, refined, and of seemingly late origin, it still has a priority and validity none other may claim. Coming to its throne, it at once

[e] Hebrews xi. 27.

asserts its authority; and declares that its most remote cognitions must take precedence of, and if need be depose, any humbler servitors who may have offered an opinion. It acts like the Christ when dealing with the old teachers. "It hath been said by them of old time"—"But I say." So the moral faculty says,—"Sense hath declared that life is more precious than all things, but I say that right is higher than life, and that, to serve the right, life must, if need arise, be surrendered." Thus the moral element is the deepest and most structural principle in all sensation, cognition and emotion; and as it is slowly disentangled from these, and takes rank as a distinct faculty, the authority it has always possessed it at once proceeds to exert.

To sum up this chapter:—The structural unity of Mr. Spencer's system can be maintained only by allowing:—

1. That the "Force" contains Mind as well as Matter.

2. That the *ego* is a living Personality, a Mind underlying its various states.

3. That the Mind in the Force has shaped the Matter.

The Causative Force being thus proved to be Intelligent, and to have constructed the universe according to a certain Design, the conception thus obtained remains incomplete, until we add to it the mark or end which that Design was intended to reach.

Accepting as provisional—to be afterwards justified by argument—the hypothesis that the Supreme Causal Intelligence is a Personality; and adding the moderate assumption that He is as good as ourselves;—to deny which is downright Atheism;—we are driven to the conclusion that He must, like all noble natures, have placed Moral Intention at the back and causative of manifested Intelligence. Holding Moral Intention to be highest, His aim, carried throughout Creation, must have been to raise up a race of Intelligences who similarly make Intellect the vassal of Righteousness.

In carrying out this aim He will be likely to enter, from the first, on one path; and to continue moving along it until His final end is gained. This one path,—

having necessarily an intellectual aspect,—can be traced by the intellect; the intellect can exhaust its whole logical content; but nevertheless it contains more than Intellect; Intellect sees only the road along which a Moral Purpose runs.

Mr. Spencer has probably traced the logical road taken by this Intelligence; but it was the Moral Purpose, existing before that road, which called it into being.

Mr. Spencer's Theory of Conscience, and his whole system, shew this hypothesis to have much higher philosophical warrant than the opposite theory. For five reasons, viz.:—

1. It solidly integrates with the only aspect of his Philosophy which is a logical unity.

2. The authority of the Moral canons,—though much later in origin according to him,—is higher than that of the Intellectual canons; which is inexplicable, save on the hypothesis that though later in appearance, they are prior in Intention.

3. Those Moral canons,—especially in the highest natures,—set aside every law, even the instinct of self-preservation. A true Philosophy must justify this. That is not a true formula which cannot reach to the utmost extent of the phenomena it professes to interpret. The hypothesis of Moral Intention accounts for it; otherwise it remains unexplained.

4. The different treatment we are forced to accord to an unknown moral truth, and an unknown intellectual truth is an unsolved mystery, save on the supposition that the moral truth has been long structural within us.

5. Mr. Spencer's own Theory is an inexplicable anomaly, and is in utter opposition to every part of our mental structure, on the hypothesis that Moral Intention did not precede Sensation and Intellect; but on that hypothesis, it is explained at once, and by itself alone seems distinctly to point to a Supreme Moral Purpose as Causative of all.

All then that we have yet obtained, from our examination of Mr. Spencer's system, fits in, to say the least, with the hypothesis that the Supreme Causative Intelli-

gence had a Moral Purpose in forming our universe as we know it. This Moral aspect of His Being will be further examined,—and much additional argument advanced in support of it,—in the Second Part. Up to this point, however, all that I regard as proved is that the "Force" whence the universe proceeded is Intelligent,—is of the nature of Mind. This is the only proposition at present insisted on. Having this as a logical position, absolutely impregnable, much more may be erected upon it. As this is one of the turning points of the whole argument—the fortress from whence the Theistic position can be defended against all comers—it will be well to shew somewhat of its strength. This is attempted in the next chapter.

CHAPTER XV.

THE ALTERNATIVE PROPOSITION; A UNIVERSE WITHOUT MIND.

WE now have two antagonistic theories of the universe emerging into clear and pronounced outline before us, and it is needful for every philosopher to decide which of these theories he can accept. It is not possible for him to remain neutral between the two. The choice that must be made is an absolute necessity; the two paths diverge; they conduct along totally different ways; and they lead to opposite poles of being. Even if we set aside the great moral imperative which bids a man decide on the questions of destiny,—if we allow that it is right to be neutral in such momentous matters,—yet not even thus can we escape the responsibility that justly devolves upon us. For, as we implied in the introduction of this volume, the system of philosophy which any man accepts is, necessarily, the structural and formative principle of his entire conduct. It fashions his thoughts on all the greatest and deepest questions; his code of ethics, his rule and conduct of life, his religious opinions and practices, must result from it; and, as it is utterly impossible for him to avoid action on these, it is just as impossible to avoid having a principle of action, and, in some way or other, making that principle manifest. He may not verbally express it, but his *ego* expresses it in characters that are graven deeper than words. It must express itself as the generalization of his entire conduct.

That principle which he really accepts will force itself into prominence, and will shape his life. If he holds that there is nothing in the universe which is not material, he will inevitably sink in conduct to the materialist's position; if he holds that there is Mind, he lays hold of the first link of a chain which carries him into another realm of being. If he holds that there is only Force, he

must conceive of this Force as either Intelligent or Unintelligent; and, do what he will, he cannot avoid accepting one or the other. If finally he holds that he knows nothing, and cannot decide in which class the Force should be ranked, that is nothing but a verbal proposition, which his whole conduct will be compelled to deny. Wanting in manly courage as is all conduct which will not face the great questions of being, yet even so the answer must be made. So that every man may simply choose between the position and dignity of a man and a hero, who puts reason to a noble use, comes to a distinct decision, and cheerfully confronts all the consequences of that decision; and a mere coward and slave, who is forced, in spite of himself, to bear the responsibility he has in vain sought to evade. Life's burdens rest upon us all: the Power that brought us into being takes care that none shall escape them.

And as we must decide on these great questions, so also we must accept the whole system *en bloc.* Whatever can be shewn by logic to be a part of it, we must be prepared to take; whatever can be shewn to be logically inconsistent with it we must be prepared to surrender. We cannot be allowed to pick and choose;—to take something out of this, and something out of that; and then to call this incongruous medley of opposites, a philosophical system. That is a course worthy only of children; the bold, strong intellects of our nineteenth century cannot deem it dignified.

We have then our choice between 1, That Theory of the universe which asserts it to be produced without Mind: and 2, That Theory which asserts an Intelligent Cause of all things. We have now to see which of these two is the more consistent, and worthy of rational beings. Let us look at that theory which asserts that the universe has been produced without Mind. The opposite theory will be examined in the Second Part of this volume.

On this hypothesis we conceive the universe, as we now know it, to have come into existence by the working of a blind, Unintelligent Force; and we are compelled to

regard all Mind and Intelligence in men as only the outcome of material substance and mechanical laws.

To this hypothesis three weighty objections at once start up.

1. It is as we saw opposed to a structural doctrine of Mr. Spencer's Philosophy. That doctrine is that there is a dualism in the universe—that there are two entities, subject and object, self and not-self, Mind and Matter;—that this dualism is a truth transcending all others in certainty, and that between these two entities there is a chasm never to be bridged while consciousness lasts. If this proposition has not been abundantly proved to be one of Mr. Spencer's structural doctrines it is not easy to tell what force of argument can establish any proposition whatever. The whole of his elaborate and lengthy attack on Hume, and on the whole Materialistic school, falls in utter confusion, and is nothing more than words without sense, if his Philosophy really asserts or allows that Materialism is the true theory of the universe. Even if we waive the language he has used to express the antagonism between Matter and Mind,—if we make nothing of his assertion that we can think of Mind only in terms of x, and of Matter only in terms of y,—if we discount all the other phrases he employs to set forth the unparalleled nature of the chasm between them,—yet,—taking only his assertion of the co-existence of subject and object,—we, from that alone, obtain a proposition which is the logical contradictory of the Materialistic theory. For, beyond all controversy, that theory is monistic in its nature;—it asserts that there is only one element, Matter and not Mind;—and it affirms that what seems to be Mind is only the outgrowth of Matter. Now if a system affirms the co-existence of two things,—of subject and object,—that is the affirmation of a dualism which is the logical contradictory of the Materialistic monism. We need therefore nothing more than Mr. Spencer's oft repeated doctrine in order to shew that his system is not capable of being reconciled with the Materialistic theory. But we may remind the reader that this doctrine was

shewn to be the main column in two of his great structural principles. We saw that it was this in that important part of the system which proved the doctrines of Realism; which culminated in the assertion that Mind and Matter were at opposite poles of being. And we saw it again in the structural doctrine that Subject was distinct from Phenomena, the *ego* from its changing states. Both of these doctrines are the logical contradictories of Materialism. Materialism asserts that Mind and Matter are one and the same entity. It asserts that there is no subject, no *ego*, but only a bundle of sensory powers. Two of the greatest, deepest, most fundamental, doctrines of Mr. Spencer's system are therefore diametrically opposed to the notion that there is no Mind in the universe.

It can hardly be necessary to prove afresh that if the Force out of which the universe came did not contain Mind, Mind could never have been produced. *Ex nihilo nihil fit* really proves it. For in saying that Mind is separated from Matter by the whole diameter of being, we as good as say that each is to the other as zero. Out of no Mind no Mind can come. So that if we assert that the Force was Unintelligent,—did not contain Mind,—we must also be prepared to accept the proposition that there is no Mind anywhere in the universe. If there was no Mind at the very beginning of motion, if no Mind entered with organic life, if no Mind came with moral and intellectual life, if no Mind has come at any time, there can never have been any Mind at any time in the world. If at any time Mind has entered then that Mind must have been either the Intelligent Cause of the Mind in the universe, or else have been originated by that Cause.

Thus the two parts of the statement—that all things came from a blind Unintelligent Power—are overthrown. A great part of Mr. Spencer's system shews that the existence of Mind is a fact not to be dislodged from a just conception of the universe. That Mind,—unless something can be generated by nothing,—can have been called into existence only by a Power which is Intelligent, which

is not a mere blind Force of the nature of Matter, which contains what is of the nature of Mind as well.

2. The dogma that there is no Mind in the universe is one that language refuses to express.

Mr. Spencer, as we saw, makes good use of the contrivance of proving his adversaries in the wrong, by shewing that the very words they use to express their conceptions themselves imply the doctrine which they declare they do not hold. We saw how he employed this mode of argument in his attack on all the systems of Non-Realism. But only let us try to form some dim imagination of the fearful hiatus which is made in all human conceptions if we accept this dictum that Mind does not exist.

It is sufficiently startling to learn that all the works which have hitherto been regarded as the glory of our race must henceforth be deemed to have been produced without any Design, Invention, or Intelligence. Those characteristics which men imagined they had seen in the works of Plato, and Newton, and Kant; in the *Divina Commedia*, and "Paradise Lost;" in the dramas of Shakspere, and the oratorios of Handel; in the *Principia* of Newton, and strange to relate, in the Philosophy of Mr. Spencer, are only illusions imposed upon us by a radical defect in our faculties; there is no Mind running through them, no intelligence informing them, they are in no sense the result of Design, but are only the outcome of that which has no power to think at all. This seems to me nothing but the fair and logical result of the statement that there is no Mind in our world; it is nothing more than an amplification of that statement; and surely it needs only to be thus amplified in order to reduce it to an absurdity. It is not easy to speak of it with gravity. A Philosophy which is driven to maintain this will surely perish amidst the inextinguishable laughter of mankind.

But this is not all. Surely in that case the foundation of Science is at once cut away[a]. If there is no Mind in

[a] The whole of this argument was, I doubt not, suggested by a Lecture by my friend Professor Griffith, which has since been amplified into the volume,

the universe, no Intelligence in men, how can there be such a thing as Science, which is nothing more than classified intelligence? The *raison d'être* of Science can only consist in that it is the report by the Mind of what it perceives in the universe around. But if there is no Mind, how can it perceive anything; and what are our perceptions worth? In that case the whole universe remains blind, with no eye that can see, no Intelligence that can comprehend, and the sum total of human knowledge drops away from us as only a collection of illusions. The *ego*,—the Mind—must assert its own existence before it can assert one fact that Science can use; and, in asserting one scientific observation, there is necessarily contained, as the correlative of that observed objective fact, the existence of the observing subject. All science necessarily rests for its final foundation on consciousness; and if that does not give a true report of the *ego*, necessarily its report of the *non-ego* must be still more uncertain.

But let us look at Science in its two chief aspects. It deals with single facts. It masses these into laws. Concerning both of these it will, I think, be found that the disappearance of the *ego*, or *nexus* unifying the states of consciousness, implies the disappearance of any certainty as to the fact, any validity as to the law.

Science rests ultimately on the evidence of the senses. An element submitted to a chemist he pronounces to be sulphate of zinc, because, on applying various tests, he finds it behave exactly as he has before observed sulphate of zinc to behave. But what is the fact as it is presented to his senses? When he says he sees the sulphate, what does he mean? Simply that certain waves of light come to his eye, are refracted by the crystalline lens, are thrown upon the retina. There they set up motion in the nerve molecules, which motion is carried on until it reaches the particles of the brain. Now if there is no Mind within that brain to interpret the motion of its particles,—to

entitled "Faith: the Life-root of Science, Philosophy, Ethics, and Religion," referred to in chapter iv. p. 37.

translate them into the symbols of an Intelligence,—how is it possible for the motions of those waves of light to be expressed as facts of which Science can make use? Without the unifying Mind, the different waves of light, sound, smell,—which (along with motions given by touch and taste) make up all the information given through the senses,—are interpretable only as motions; and nothing save a Mind can interpret them into facts of intelligence. Without Mind then, the link which Science must have to justify her conclusions utterly disappears; her facts drop away as unproved and inconsistent assumptions; her whole edifice melts into thin air; she does not know a single truth; her splendid discoveries are only a dream of deceit. How indeed can it be possible for anything to be known, if there is nothing to know it? How can the objective fact rest on a secure basis, if its subjective correlative is only an illusion?

Science is also, in its aggregate, a collection of laws. These laws are generalizations from, rest upon, and grow out of, the facts. Obviously then, if the facts are not proved,—as on the assumption that there is no Mind in the universe, we have just seen to be the case,—the laws must remain equally unproved [b]. But as the assumption of no Mind invalidates the *foundation*,—which is the material of Science,—so also does it invalidate the *process*,—which is the method of Science,—and the *result*,—which forms the body of Science. The process is by comparing, and classifying. The Mind, asserting its own validity, asserts also the validity of its methods; and, if this evidence be accepted, the mode or process adopted by Science is proved to be sound. But if this Mind, (which Science must bring forward as a witness to justify her action,) drops away, manifestly its testimony ceases at one and the same moment; and the entire scientific process remains without a particle of justification. Until the *ego*

[b] "The modes of action according to natural law cannot be arranged in scientific form, have no ultimate explanation, until represented to our mind as the work of Intelligence."—"The Supernatural in Nature," 2nd Edition, p. 260.

shall assert that "Things that are equal to the same thing are equal to one another," and shall declare that this is a valid statement,—made valid because the *ego* asserts it,—Science cannot stir a step. But obviously that foundation —the *ego's* assertion—is worthless if that *ego* is not a veritable entity. A witness that is not existent is no use in court, either of justice or philosophy. Science must come for its foundation truths to the *à priori;* it must have these as its structural columns; and it is only as Mind exists, and can assert its own existence, that it is of any use whatever in testifying to the validity of any truth Science may need [c].

The facts and method of Science being both proved uncertain, it is clear that the results which rest on these are equally unsatisfactory. The higher generalizations depend upon the ability of the Mind to comprehend a great number of facts in one vast whole; and it is clear that, before these generalizations can be held proved, we must have satisfactory evidence that such a unification of many facts is valid. But who or what is to bear witness to such validity if the Mind cannot affirm its own competency; and how can it possibly make such an affirmation, and how validate it when made, save by first of all affirming its own existence? Until this be done, it seems to me the whole of Science,—its facts, its process, its results,—remains utterly unproved and unprovable; the edifice of human knowledge falls into a confused ruin; nothing is known, nothing can ever be known. Again I ask, How can anything be known, if there is nothing to know it? How can knowledge be possible when the means of knowledge does not exist? If there is no Mind in man, there is no Science in man's universe; the two stand or fall together. If thought is not proved to be the product of a thinking Mind, how can the product of thought be proved to have a more certain existence? Nullify the Mind of which thought is a modification you inevitably nullify the product of thought, the correlative of that modification.

[c] "Facts are to Science, what the letters of the alphabet are to a poem." —"Faith: the Life-root of Science," &c., p. 52.

To reduce the question to its most general terms. Every part of Science, whether an observed fact, an *à priori* principle, or a generalization, is necessarily an affirmation. But an affirmation is nothing but an expression in terms of Intelligence,—a translation, out of the language of the material and objective, into the language of the mental and subjective. What possible validity then can that translation have unless the translator is first proved to be competent? Shall we set a man who does not know a line of Greek to turn the dramas of Æschylus into good English? If we so act shall we have any just reason for thinking that his production will be a faithful rendering of the original? But the chasm between Greek and English is a bagatelle compared with the chasm between the impressions made by the outside world on the sensorium, and the expressions, in terms of Intelligence, which Science formulates. Who or what then shall testify to the ability of our interpreter, unless that interpreter shall be allowed to affirm his own competency; and in affirming that, to affirm at the same time his own existence? Thus we come to the point we reached before, that unless the primary assertion of the Mind as to its own existence be accepted, Science is only the baseless fabric of a dream.

It seems then to me a just statement that the notion that there is no Mind in the universe is a notion that Language refuses to express. Mr. Spencer holds himself to have overthrown Hume and Berkeley, by shewing that single words implied the idea they rejected,—had that idea behind them. But we have now seen that it is not single words, but vast masses of words,—not less than the bulk and totality of human language,—which has this notion of the existence of Mind, which necessarily implies this notion, which requires that Mind as the entity which can alone give certainty. Without Mind, the sum total of human knowledge is a quaking bog: History must be rewritten from beginning to end: Poetry has no force, Art has no charm and no meaning. Without Mind, Plato, Kant, Leibnitz, Newton, Milton, Shakspere, display neither Intelligence nor Thought, neither Invention nor Design:

the Locomotive, the Sewing Machine, the Electric Telegraph, are mere bundles of matter, shaken into their place by some unexplained chance. Without Mind, the whole foundation and fabric of Science,—its facts, its methods, its results—disappear: human reason is hopelessly shattered: the whole universe reels and staggers like a drunken man: certainty vanishes out of the whole range of human life: the entire human race,—men, women and children—are madmen, or fanatics, or simpletons, or possibly a combination of all three; and what other catastrophe must result, if we have no Mind, it is impossible to say. But men of sense refuse to concur in this verdict of universal imbecility; they posit the existence of Mind as the most certain of facts; they solidify, by the assertion of their own common sense, the quaking and spectral universe; and all the great Modes of Mind's manifestation,—History, Politics, Art, Poetry, Music,—unite with Science and Philosophy in declaring that the notion of the non-existence of Mind is not less than an insult and an outrage to the whole human race. Language refuses to stultify itself by making the affirmation; it is a falsehood which earth casts with scorn beyond her bounds.

3. Let us now try to reach this falsehood in its central seat and citadel. Our consciousness affirms our Personality, and our Identity; affirms, that is, that we are not a mere collection of atoms, but that those atoms make a personal unity which we call self or *ego;* and it affirms that, although the material atoms, bound up with the *ego*, may change, yet the *ego* itself remains the same identical person that it ever was. These two affirmations are amongst the most certain deliverances of consciousness; and a true Philosophy must accept them. Now, it seems to me that neither can be philosophically justified, save on the hypothesis of an indwelling Mind, unifying and binding all together. Hence the contrary hypothesis that there is no Mind in us is contradicted by the very fact of our own existence.

For what is our sense of Personality? It is, amongst other things, a sense of the unification of all the im-

pressions made on the sensorium. The prospect now before me as I write is scientifically interpretable as the impinging of waves of light upon the crystalline lens, through which, refracted somewhat, they pass on to the retina. There they set up motion in the nerve-fibres, which motion is carried on to the brain. All then that the brain receives is Motion. Similarly as to all the senses. The sounds I occasionally hear are interpretable only as waves of air breaking on the tympanum, which, in like manner, send motions to the brain. The sensation of taste is interpretable only as motion communicated to the *papillæ* of the tongue; of smell as motion communicated to the olfactory nerves; and of touch as motion communicated to the peripheral nerves. Now how can all these motions be translated into sensations and impressions that I feel, except on the hypothesis that a personal *ego* exists,—a Mind which dwells within and uses the senses, and through them receives the impressions from the outside world? Without that unifying Mind, it is impossible, it seems to me, to explain the central fact of Personality; and hence if that Mind's existence be denied the most certain truth we have remains utterly unexplained. There can be no truth so certain to me as that I exist; and if I wish to form a Philosophy which logically integrates me with the universe, and with all knowledge, I must fall back on the hypothesis that I am an interpreting and unifying Mind. My Personality and my common sense therefore force me to the belief in Mind. Mr. Spencer allows that "belief in the reality of self is" "a belief which no hypothesis enables us to escape[d]," and belief in the reality of self, surely implies belief in the reality of Mind.

Not otherwise is it in regard to our Identity. None of the atoms that make up our bodily organism were present in us ten years ago; but nevertheless it is one of the most certain of truths that we are the same individuals that we were at that time. The *ego* by consciousness affirms that whilst its material embodiment is changed, it remains one

[d] "First Principles," p. 64.

and the same; its modifications have undergone alteration, but itself,—the *nexus* which unites them all,—persists; and is structurally unchanged. On the thread of its existence the material atoms making up the body have been strung; some have gone off at one end to be replaced by some at the other end; this process has been so often repeated that not one of the original atoms remains; but the thread uniting them is just as it was; if differently colored, its existence remains untouched. Now how can this be explained save on the hypothesis of a unifying Mind? The body has been fed by protoplasm, say in the shape of mutton; as each morsel has been received it has been wrought into the structure of the system; and by a repetition of this process the whole body has been made new. What then can unify all these heterogeneous atoms, which I now recognise as mine,—as a part of me,—save a unifying Mind, which through its senses had relations with the outside world ten years ago, and has maintained relations with the same world to this hour? Nothing but this can give us the thread we call personal Identity; without it we are mere bundles of molecules, and our deepest conviction is a delusion.

Let us consider now what an overwhelming argument in favor of the existence of Mind these three form by their union. We have seen:—

1. If Mind does not exist—if what seems Mind in us is only the outcome of Material development,—Mr. Spencer's whole Philosophy becomes a shapeless ruin.

2. To say that Mind does not exist is to overthrow Science, Philosophy, Ethics, Politics, Art, Poetry, Music;—it is to deny Invention, Intelligence, Design to all man's grandest handiworks; it is to overthrow the Intelligence of all ages of mankind; it is to shatter Reason irremediably; to bring in a verdict upon the whole race of thorough-going mental imbecility. Say that Man has no Mind,—no Intelligence,—you manifestly brand him as a mental imbecile.

3. To say that there is no Mind, unifying and binding together the *simultaneous* states of consciousness, is to

deny that sense of Personality which is the most certain truth we possess. To say that there is no Mind unifying the *successive* states of consciousness is to deny our personal Identity; and to overthrow in so doing the foundation of all Ethics, Politics, Jurisprudence, Human Society.

It seems to me, therefore, that Reason is irresistibly compelled to regard the existence of Mind as one of the most certain of truths. That stands as a proposition not to be dislodged from any just conception of the universe. No man who deals fairly with his intellect can, I think, come to any other conclusion. It has evidence on its side which is simply overwhelming. It is at once a deep, *à priori* truth growing out of, contained in, the most certain deliverances of consciousness; and a vast philosophical generalization, resting on millions of observed facts, contributed by all the sciences, and unifying and harmonizing the whole. The existence of Mind is a great rock of truth stretching athwart the whole universe, which no conceivable force of argument may ever hope to overthrow.

PART II.

RELIGIOUS PRINCIPLES.

CHAPTER I.

THE UNKNOWABLE.

THE root principle of Agnosticism is that the Power manifested in the universe is Unknown and Unknowable. That is the origin from whence the whole Agnostic system proceeds. It is the foundation on which its doctrines, considered in their religious aspect, rest. In so far as it comes into collision with, or ignores, or differs from Theism, that is the position it always takes up; its forefront and stronghold is that the Power evidenced throughout the universe is a Power, the lineaments whereof cannot be determined, which Power must be regarded as utterly and for ever inscrutable.

Obviously a great deal must turn on the meaning of these large terms—"Unknown" and "Unknowable." It is necessary for us to be clearly informed what is the exact region of truth which is thus asserted, or proved, to be beyond our limits. What is the boundary which marks the Knowable,—what is the defining line which separates the Knowable from the Unknowable? Now of this Mr. Spencer has given us no definition whatever. The utmost we can learn from him is that it has chiefly to do with Religion: "The Unknowable" is an amorphous, luminous mist, stated by him to reside mainly in that region of thought which Theists have heretofore regarded as inhabited by Deity. But the phrase is of a highly abstract nature, and being a negative phrase—a synonym of the not-knowable,—it conveys absolutely no meaning whatever, apart from the region of thought it covers, and the ideas it is meant to connote.

One of the safest maxims of philosophy is that the meaning of the abstract is always to be obtained by examining the concrete? This is indeed nothing more than a dictate of common sense. The abstract term is a grouping into one generalization of all the concrete facts; and hence it is clear it can contain nothing but what those facts contribute. It is nothing more than a purse made to hold the coin which the facts may offer; clearly then if we examine and count the coin we shall find out all that is in the purse.

What then is Mr. Spencer's Unknowable? What is the region of thought which he thus marks off from human ken? All that he says about it is contained in Part I. of "First Principles." This extends over 123 pages, and is divided into five chapters. Over these it will now be necessary for us to travel.

The first chapter is on Religion and Science; and the main structural truth it sets before us is that Religion and Science have some great verity underlying each of them, which verity,—since it is the truth,—Philosophy is not able to deny; and it is contended that a complete and lasting reconciliation between the two will be found upon this basis of the truth,—each one admitting what is true in the doctrines of the other; and each content to dwell within the limits the truth marks out for it. To this statement, Theists can take no exception; they ask only the honest admission of all proved truth.

The second chapter is long and important, and really contains the gist of what Mr. Spencer means by the "Unknowable." It deals with "Ultimate Religious Ideas," and as we find out from him what these are, we shall travel over the chief part of that region, which he has marked unknowable. It is divided into two parts;—the origin of the universe, and the nature of the universe.

As to the origin of the universe he says three ideas are possible. 1. That the universe is "self-existent." 2. That it is "self-created." 3. That it is "created by an external agency[a]." He examines each one of these three hypo-

[a] "First Principles," p. 30.

theses, and shews that each one of them is unthinkable. From hence he infers that the origin of the universe is one of the things unknowable.

1. A self-existent universe implies a universe existing without a beginning, but "existence without a beginning [b]" is inconceivable. Even if it were conceivable "it would not in any sense be an explanation of the Universe [b]." The existence of an object is made no more comprehensible by proving that it existed years ago, or an infinite period ago. Thus the hypothesis of Atheism—of a self-existent universe,—is "unthinkable [b]," and even if it could be thought, would still be no explanation.

2. A self-created universe, or Pantheism, is not conceivable. There is required (to conceive it) that we shall "conceive potential existence passing into actual existence [c]." Now we cannot conceive potential existence at all; we are compelled to conceive it as "*something*,—i.e. as an actual existence [c],"—which is the very thing it is not. To suppose it *nothing* is to suppose "two absurdities [c]." 1. That "*nothing*" "can be positively represented in thought." 2. "That one nothing is distinguished from all other nothings by its power to develope into something [c]." Moreover, existence passing into another shape without external agency involves "a change without a cause,—a thing of which no idea is possible [d]." Yet further, we should still be driven to ask whence came the potential existence. For all these reasons then a self-created universe is inconceivable.

3. A universe created by external agency. This hypothesis is just as inconceivable as the two former. The difficulty of conceiving it lies not in the mere shaping of existing matter, but in "the production of matter out of nothing [d]." This cannot be conceived. We cannot link into one proposition something and zero. A still greater difficulty is caused if we assert the creation of space. If not created, how came it into being? If created, it must have been, before its creation, "non-existent [d]." But no effort enables us to conceive space as non-existent. Again,

[b] "First Principles," p. 31. [c] Ibid., p. 32. [d] Ibid., p. 34.

even supposing the universe accounted for by external agency, still the question arises, "How came there to be an external agency[e]?" To this the three answers before named are the only ones that can be given; it was self-existent, self-created, or created by an external agency. All three we have seen are rigorously inconceivable.

Thus the origin of the universe is proved to reside in a region which our minds cannot enter. It lies on the other side of the line which limits the Knowable. Now, before passing on to Mr. Spencer's further reasoning, let us examine what kind of knowledge that must be, and what the mental standpoint, of one who can conceive or comprehend the origin of the universe. To conceive, to know, to comprehend, is to stand in mental relation to the thing comprehended. That thing comprehended is the objective fact, and to comprehend it is to stand in mental or subjective relation to it. Consequently to conceive or comprehend the origin of the universe would demand that the being who conceived that origin should stand in mental relation to it. Now, "the origin of the universe" is that precise operation which took place when the primal, original "nothing" passed into "something." "Nothing" is one of the limits of the proposition, "something" is the other. To conceive the origin of the universe is to stand in mental relation to this operation. But none of our possibilities of thought can lead us to the acquaintance of "nothing." But as "nothing" cannot be conceived by us, the only possible mode of our standing in relation to the origin of the universe would be by ourselves beholding that origin. In no other way could the concept come before us. But before we could behold that origin we must ourselves be existent. Now, by hypothesis, we form no part of the *originated* universe, because *we are to be present at its origin.* Clearly, therefore, we could be existing and beholding at the origin *only by being ourselves the Originator.* That is to say—to conceive the origin of the universe is an operation possible only to the Creator! One of the things unknow-

[e] "First Principles," p. 35.

able is thus shewn to reside in a realm where Deity only can enter! To say that man is not God is a mere truism; yet that is the whole content of Mr. Spencer's proof that we cannot conceive the origin of the universe.

Let us pass on to the second part of the chapter—which deals with "the nature of the universe."

Every sensation, he continues, compels us to infer a cause, and we are driven to require a "First Cause[f]." What then is the nature of the First Cause? Is it "finite or infinite[f]?"

If finite, then there must be something beyond its bounds, which something is uncaused—i.e. if we accept the notion that the universe is finite, "we tacitly abandon the hypothesis of causation altogether[g]."

But if not finite, that First Cause must be Infinite.

The First Cause must also be "Independent[g]."

If dependent, it is dependent on something, which something is in that case the First Cause. Similarly it "must be in every sense perfect, complete, total: including within itself all power, and transcending all law. Or to use the established word, it must be Absolute[g]."

The First Cause then must be Infinite and Absolute.

But these three ideas—Infinite, Absolute, Cause, considered as aspects of one and the same Being—are self-contradictory; and as such are rigorously inconceivable by us. Mr. Spencer thus quotes Mr. Mansel in his "Limits of Religious Thought."

Having given preliminary definitions of the First Cause, of the Infinite, and of the Absolute, Mr. Mansel says:—

"But these three conceptions, the Cause, the Absolute, the Infinite, all equally indispensable, do they not imply contradiction to each other, when viewed in conjunction, as attributes of one and the same Being? A Cause cannot, as such, be absolute: the Absolute cannot, as such, be a cause. The cause as such, exists only in relation to its effect: the cause is a cause of the effect; the effect is an effect of the cause. On the other hand, the conception of the Absolute implies a possible existence out of all relation. We attempt to escape from this

[f] "First Principles," p. 37. [g] Ibid., p. 38.

apparent contradiction, by introducing the idea of succession in time. The Absolute exists first by itself, and afterwards becomes a Cause. But here we are checked by the third conception, that of the Infinite. How can the Infinite become that which it was not from the first? If Causation is a possible mode of existence, that which exists without causing is not infinite; that which becomes a cause has passed beyond its former limits[h]."

Mr. Mansel carries on similar reasoning through several pages and thus sums up:—

"The Absolute cannot be conceived as conscious, neither can it be conceived as unconscious: it cannot be conceived as complex, neither can it be conceived as simple: it cannot be conceived by difference, neither can it be conceived by the absence of difference: it cannot be identified with the universe, neither can it be distinguished from it. The One and the Many, regarded as the beginning of existence, are thus alike incomprehensible[i]."

He then applies it to Theological conceptions:—

"The fundamental conceptions of Rational Theology being thus self-destructive, we may naturally expect to find the same antagonism manifested in their special applications. . . . How, for example, can Infinite Power be able to do all things, and yet Infinite Goodness be unable to do evil? How can Infinite Justice exact the utmost penalty for every sin, and yet Infinite Mercy pardon the sinner? How can Infinite Wisdom know all that is to come, and yet Infinite Freedom be at liberty to do or to forbear? How is the existence of Evil compatible with that of an infinitely perfect Being; for if he wills it, he is not infinitely good; and if he wills it not, his will is thwarted and his sphere of action limited[j]?"

Then Mr. Spencer proceeds to infer, without advancing any more argument, "that Atheism, Pantheism and Theism, when rigorously analysed, severally prove to be absolutely unthinkable[k]." He thus sums up the chapter:—

"Here, then, is an ultimate religious truth of the highest possible certainty—a truth in which religions in general are at one

[h] "First Principles," p. 39. [i] Ibid., p. 41. [j] Ibid. [k] Ibid., p. 43.

with each other, and with a philosophy antagonistic to their special dogmas. And this truth, respecting which there is a latent agreement among all mankind from the fetish worshipper to the most stoical critic of human creeds, must be the one we seek. If Religion and Science are to be reconciled, the basis of reconciliation must be this deepest, widest, and most certain of all facts—that the Power which the Universe manifests to us is utterly inscrutable[1]."

So far, then, Mr. Spencer's generalization that "the Power which the universe manifests to us is utterly inscrutable," rests on two propositions :—

1. Because the origin of the universe is inconceivable by us. We just saw that to conceive its origin is possible only to the originator; so that this proposition means only, Man is not God.

2. Because an Infinite and Absolute First Cause is a contradiction in terms. Let us examine the import of this proposition.

Cause, Infinite, Absolute, are three concepts which our minds are utterly unable to reduce to a logical unity. The three refuse to blend into one. In what region then do they reside, and what must be the standpoint of the mind which can unify them? As to the first—Cause—the notion is simple, and causes no difficulty. The second—Infinite—is something of which we have no experience whatever; and no materials out of which we can fashion any approximation towards the concept. All our thoughts,—our images and numbers,—are of the genus finite; and any finite number of finites, can never, in the nature of the case, approach to the Infinite. But we said that to conceive of a concept is to stand in relation to that concept. Now as this concept of the Infinite is something quite out of our ken, it is clear that our only way of conceiving it would be by ourselves being Infinite. Which brings us to the point we reached before, viz., that to conceive the Infinite we must ourselves be Infinite ;—must have, that is, one of the attributes peculiar to Deity. Our inability then to

[1] "First Principles," p. 46.

unify Infinite and Absolute means, as before, nothing more than that Man is not God.

Similarly as to the Absolute. Of this we have never had any experience. It also is in a region which has never come into our ken. "The Absolute" means,—to put it simply, and in plain words,—the Infinite First Cause conceived as a Totality comprehending all things. Manifestly we could never come into mental relation with this Absolute, without being ourselves both Absolute and Infinite. If not Infinite we could not comprehend an Infinite Being; if not Absolute we could never form any conception of the Absoluteness of that Being. So that we come to precisely the same point as before. We have now exhausted the entire content of Mr. Spencer's generalization, at any rate up to this stage,—and we shall find as we go, that we have virtually exhausted its whole content,—and we discover that it only yields the barren truism that Man is not God. The Power in the universe is, according to Mr. Spencer, utterly inscrutable to us because there are heights to which we cannot soar, depths which we cannot fathom! A creed of absolute religious nescience,—the creed of Agnosticism,—rests on this only foundation, that Man is mentally inferior to Deity!

But let us see what Mr. Spencer further says.

The third chapter deals with "Ultimate Scientific Ideas." Space, Time, Matter, Motion, Force, are then severally examined, and are shewn to be equally unrepresentable in thought, and Consciousness is proved to stand in the same category. It must be either infinite or finite. We cannot think it to be infinite. We cannot conceive it as finite. "Belief in the reality of self[m]" is something we cannot escape. But we cannot conceive or know self. All knowledge is a relation of subject and object. Now if the thing known is self, what is the thing knowing? All these then,—Space, Time, Matter, Motion, Force, Consciousness, Self,—are alike Unknown and Unknowable. Of their ultimate substances we can form no conception,

[m] "First Principles," p. 64.

They too lie beyond the line which marks the extent of possible knowledge.

So that, up to this point, Mr. Spencer makes the unknowable character of the Power manifest in the universe to be of precisely the same nature, and to be the same in degree, as the unknowable character of those familiar scientific and philosophical conceptions about which every one will admit we know a great deal. We know, according to him, as little, or as much, of the Unknowable Being as each one of us knows about his own self. On the extreme verge of the limits of self, we cannot go, or at any rate cannot go on the other side of those limits so as to see them; on the extreme verge of consciousness, the manifestation of self, we are equally unable to tread; to the uttermost depth of well-known scientific concepts we cannot reach; and to the outermost verge of the Infinite and Absolute Being, who comprehends all things, we are equally debarred admission. That, as far as we have yet gone, is the whole area of thought which Mr. Spencer has marked out as unknowable. Strictly speaking it is not an area; it is only a defining line; the entire area within that line is quite open to our exploration, and can be traversed and known in every part;—but we cannot sit upon the fence, and look over into the adjoining territory. That is all Mr. Spencer has yet proved. We saw before that the entire content of his argument was reducible to the barren truism that man is not God; and we now further learn that Man can know no more about God than he knows about those familiar matters which lie nearest to his hand. It seems to me that the Agnosticism which gathers around the luminous mist called the Unknowable is rapidly taking the shape and density of a mere philosophical wind-bag; a bubble which only needs pricking to make it fade away into an empty nothing. If its entire content is that the Deity can be known by us no better, and in no other way, than we know ourselves, it seems to me not easy to distinguish it from philosophical trifling.

Mr. Spencer has another chapter on "the Relativity of all knowledge,"—over which it will be well for us to travel,

but it really contains no more argument, and breaks no fresh ground.

He has shewn that the human intelligence is proved incapable of absolute knowledge. "The reality existing behind all appearances is, and must ever be, unknown." He continues :—

"To this conclusion almost every thinker of note has subscribed. 'With the exception,' says Sir William Hamilton, 'of a few late Absolutist theorisers in Germany, this is, perhaps, the truth of all others most harmoniously re-echoed by every philosopher of every school.' And amongst these he names—Protagoras, Aristotle, St. Augustin, Boethius, Averroes, Albertus Magnus, Gerson, Leo Hebræus, Melancthon, Scaliger, Francis Piccolomini, Giordano Bruno, Campanella, Bacon, Spinoza, Newton, Kant[n]."

Established empirically, Mr. Spencer proceeds to shew that the relativity of all knowledge may be proved deductively. He says :—

"The induction drawn from general and special experiences, may be confirmed by a deduction from the nature of our intelligence. Two ways of reaching such a deduction exist. Proof that our cognitions are not, and never can be, absolute, is obtainable by analyzing either the *product* of thought, or the *process* of thought. Let us analyse each[o]."

The *product* of thought, or *what* we know. He shews that all explanations of any phenomena are nothing more than references to some law, which law we further explain by referring it to some higher and greater law. Thus, hearing a rustle, when walking in the fields in September, we explain it on finding a wounded partridge close to the spot, the wounding of the partridge by the action of the sportsman ; this again by the chemical effect of gunpowder, which once more we include in a higher generalization of the unstable character of nitrogen. Perhaps this might be explained by shewing that nitrogen contains a large quantity of unexpended force. But obviously each explanation has only been the inclusion of the phenomena

[n] "First Principles," p. 69. [o] Ibid.

within a more general law; *and, as this is our only way of explaining anything*, it is clear we must at length come to the most comprehensive generalization; which—since we cannot reach anything more general—we cannot explain. Says Mr. Spencer:—

"Of necessity, therefore, explanation must eventually bring us down to the inexplicable. The deepest truth which we can get at, must be unaccountable. Comprehension must become something other than comprehension, before the ultimate fact can be comprehended[p]."

The *process* of thought is then analysed, and this is done chiefly by quoting the arguments put forward by Sir William Hamilton to establish his "Law of the Conditioned." Mr. Spencer says:—

"The demonstration of the necessarily relative character of our knowledge, as deduced from the nature of intelligence, has been brought to its most definite shape by Sir William Hamilton. I cannot here do better than extract from his Essay on the 'Philosophy of the Unconditioned,' the passage containing the substance of his doctrine.

"'The mind can conceive,' he argues, 'and consequently can know, only the *limited, and the conditionally limited.* The unconditionally unlimited, or the *Infinite*, the unconditionally limited, or the *Absolute*, cannot positively be construed to the mind; they can be conceived, only by a thinking away from, or abstraction of, those very conditions under which thought itself is realized; consequently, the notion of the Unconditioned is only negative, —negative of the conceivable itself. For example, on the one hand we can positively conceive, neither an absolute whole, that is, a whole so great, that we cannot also conceive it as a relative part of a still greater whole; nor an absolute part, that is, a part so small, that we cannot also conceive it as a relative whole, devisible into smaller parts. On the other hand, we cannot positively represent, or realize, or construe to the mind (as here understanding and imagination coincide), an infinite whole, for this could only be done by the infinite synthesis in thought of finite wholes, which would itself require an infinite time for its accomplishment; nor, for the same reason, can we follow out in

[p] "First Principles," p. 73.

thought an infinite divisibility of parts. The result is the same, whether we apply the process to limitation in *space*, in *time*, or in *degree*. The unconditional negation, and the unconditional affirmation of limitation; in other words the *infinite* and *absolute properly so called*, are thus equally inconceivable to us[q].'"

A few lines later Hamilton says:—

"How, indeed, it could ever be doubted that thought is only of the conditioned, may well be deemed a matter of the profoundest admiration. Thought cannot transcend consciousness; consciousness is only possible under the antithesis of a subject and object of thought, known only in correlation, and mutually limiting each other; while, independently of this, all that we know either of subject or object, either of mind or matter, is only a knowledge in each of the particular, of the plural, of the different, of the modified, of the phænomenal. We admit that the consequence of this doctrine is,—that philosophy, if viewed as more than a science of the conditioned, is impossible. Departing from the particular, we admit, that we can never, in our highest generalizations, rise above the finite; that our knowledge, whether of mind or matter, can be nothing more than a knowledge of the relative manifestations of an existence, which in itself it is our highest wisdom to recognize as beyond the reach of philosophy,—in the language of St. Austin,—*cognoscendo ignorari, et ignorando cognosci.*

"The conditioned is the mean between two extremes,—two inconditionates, exclusive of each other, neither of which *can be conceived as possible*, but of which, on the principles of contradiction and excluded middle, one *must be admitted as necessary*. On this opinion, therefore, reason is shewn to be weak, but not deceitful. The mind is not represented as conceiving two propositions subversive of each other, as equally possible; but only, as unable to understand as possible, either of two extremes; one of which, however, on the ground of their mutual repugnance, it is compelled to recognize as true. We are thus taught the salutary lesson, that the capacity of thought is not to be constituted into the measure of existence; and are warned from recognizing the domain of our knowledge as necessarily co-extensive with the horizon of our faith. And by a wonderful revelation, we are thus, in the very consciousness of our inability to conceive aught

[q] "First Principles," p. 74.

above the relative and finite, inspired with a belief in the existence of something unconditioned beyond the sphere of all comprehensible reality[r]."

Mr. Spencer then quotes Mansel to the same effect.

He then advances a further argument why neither the Infinite nor the Absolute can be known or comprehended by us. Because, for anything to be known, it must be recognised and classified as like some of our previous concepts, but such classification is quite impossible of both Infinite and Absolute. He then says:—

"The First Cause, the Infinite, the Absolute, to be known at all, must be classed. To be positively thought of, it must be thought of as such or such—as of this or that kind. Can it be like in kind to anything of which we have sensible experience? Obviously not. Between the creating and the created, there must be a distinction transcending any of the distinctions existing between different divisions of the created. That which is uncaused cannot be assimilated to that which is caused: the two being, in the very naming, antithetically opposed. The Infinite cannot be grouped along with something that is finite; since, in being so grouped, it must be regarded as not infinite. It is impossible to put the Absolute in the same category with anything relative, so long as the Absolute is defined as that of which no necessary relation can be predicated. Is it then that the Actual, though unthinkable by classification with the Apparent, is thinkable by classification with itself? This supposition is equally absurd with the other. It implies the plurality of the First Cause, the Infinite, the Absolute; and this implication is self-contradictory. There cannot be more than one First Cause, seeing that the existence of more than one would involve the existence of something necessitating more than one, which something would be the true First Cause. How self-destructive is the assumption of two or more Infinites, is manifest on remembering that such Infinites, by limiting each other, would become finite. And similarly, an Absolute which existed not alone but along with other Absolutes, would no longer be an Absolute but a relative. The Unconditioned therefore, as classable neither with any form of the conditioned nor with any other Unconditioned, cannot be classed at all. And to admit that it cannot

[r] "First Principles," pp. 75, 76.

be known as of such or such kind, is to admit that it is unknowable[s]."

He thus sums up the whole of the reasoning regarding the *product*, and *process* of thought:—

"Thus, from the very nature of thought, the relativity of our knowledge is inferable in three several ways. As we find by analyzing it, and as we see it objectively displayed in every proposition, a thought involves *relation*, *difference*, *likeness*. Whatever does not present each of these does not admit of cognition. And hence we may say that the Unconditioned, as presenting none of them, is trebly unthinkable[t]."

Mr. Spencer then shews that the same great truth of the Relativity of all knowledge is necessarily structural in the very definition of Life.

He then states that the final question still remains, viz., Are we to rest content in the knowledge of phenomena only,—have we no knowledge of anything but the relative,—or must we believe in something beyond it? Hamilton and Mansel hold that we have no knowledge of anything but the relative. Mr. Spencer says:—

"The answer of pure logic is held to be, that by the limits of our intelligence we are rigorously confined within the relative; and that anything transcending the relative can be thought of only as a pure negation, or as a non-existence. 'The *absolute* is conceived merely by a negation of conceivability,' writes Sir William Hamilton. 'The *Absolute* and the *Infinite*,' says Mr. Mansel, 'are thus, like the *Inconceivable* and the *Imperceptible*, names indicating, not an object of thought or consciousness at all, but the mere absence of the conditions under which consciousness is possible.' From each of which extracts may be deduced the conclusion, that since reason cannot warrant us in affirming the positive existence of what is cognizable only as a negation, we cannot rationally affirm the positive existence of anything beyond phenomena[u]."

From this conclusion Mr. Spencer dissents. He says:—

"Besides that *definite* consciousness of which Logic formulates the laws, there is also an *Indefinite* consciousness which cannot be formulated. Besides complete thoughts, and besides the

[s] "First Principles," p. 81. [t] Ibid., p. 82. [u] Ibid., p. 87.

thoughts which though incomplete admit of completion, there are thoughts which it is impossible to complete; and yet which are still real, in the sense that they are normal affections of the intellect.

"Observe in the first place, that every one of the arguments by which the relativity of our knowledge is demonstrated, distinctly postulates the positive existence of something beyond the relative. To say that we cannot know the Absolute, is, by implication, to affirm that there *is* an Absolute. In the very denial of our power to learn *what* the Absolute is, there lies hidden the assumption *that* it is; and the making of this assumption proves that the Absolute has been present to the Mind, not as a nothing, but as a something. Similarly with every step in the reasoning by which this doctrine is upheld. The Noumenon, everywhere named as the antithesis of the Phenomenon, is throughout necessarily thought of as an actuality. It is rigorously impossible to conceive that our knowledge is a knowledge of Appearances only, without at the same time conceiving a Reality of which they are appearances; for appearance without reality is unthinkable. Strike out from the argument the terms Unconditioned, Infinite, Absolute, with their equivalents, and in place of them write, 'negation of conceivability,' or 'absence of the conditions under which consciousness is possible,' and you find that the argument becomes nonsense. Truly to realize in thought any one of the propositions of which the argument consists, the Unconditioned must be represented as positive and not negative. How then can it be a legitimate conclusion from the argument, that our consciousness of it is negative? An argument, the very construction of which assigns to a certain term a certain meaning, but which ends in shewing that this term has no such meaning, is simply an elaborate suicide. Clearly, then, the very demonstration that a *definite* consciousness of the Absolute is impossible to us, unavoidably presupposes an *indefinite* consciousness of it[x]."

A page or two later he says:—

"Still more manifest will this truth become when it is observed that our conception of the Relative itself disappears, if our conception of the Absolute is a pure negation. It is admitted, or rather it is contended, by the writers I have quoted above, that contradictories can be known only in relation to

[x] "First Principles," pp. 88, 9.

each other—that Equality, for instance, is unthinkable apart from its correlative Inequality; and that thus the Relative can itself be conceived only by opposition to the Non-relative. It is also admitted, or rather contended, that the consciousness of a relation implies a consciousness of both the related members. If we are required to conceive the relation between the Relative and the Non-relative without being conscious of both, 'we are in fact' (to quote the words of Mr. Mansel differently applied) 'required to compare that of which we are conscious with that of which we are not conscious; the comparison itself being an act of consciousness, and only possible through the consciousness of both its objects.' What then becomes of the assertion that 'the Absolute is conceived merely by a negation of conceivability,' or as 'the mere absence of the conditions under which consciousness is possible?' If the Non-relative or Absolute, is present in thought only as a mere negation, then the relation between it and the Relative becomes unthinkable, because one of the terms of the relation is absent from consciousness. And if this relation is unthinkable, then is the Relative itself unthinkable, for want of its antithesis: whence results the disappearance of all thought whatever[7]."

He then contends that both Hamilton and Mansel imply that we have a positive conception of the Absolute. He says:—

"Let me here point out that both Sir William Hamilton and Mr. Mansel, do, in other places, distinctly imply that our consciousness of the Absolute, indefinite though it is, is positive and not negative. The very passage already quoted from Sir William Hamilton, in which he asserts that 'the *absolute* is conceived merely by a negation of conceivability,' itself ends with the remark that, 'by a wonderful revelation, we are thus, in the very consciousness of our inability to conceive aught above the relative and finite, inspired with a belief in the existence of something unconditioned beyond the sphere of all comprehensible reality.' The last of these assertions practically admits that which the other denies. By the laws of thought as Sir William Hamilton has interpreted them, he finds himself forced to the conclusion that our consciousness of the Absolute is a pure negation. He nevertheless finds that there does exist in conscious-

[7] "First Principles," p. 91.

ness an irresistible conviction of the real 'existence of something unconditioned.' And he gets over the inconsistency by speaking of this conviction as a 'wonderful revelation'—'a belief' with which we are 'inspired:' thus apparently hinting that it is supernaturally at variance with the laws of thought. Mr. Mansel is betrayed into a like inconsistency. When he says that 'we are compelled, by the constitution of our minds, to believe in the existence of an Absolute and Infinite Being,—a belief which appears forced upon us, as the complement of our consciousness of the relative and the finite;' he clearly says by implication that this consciousness is positive, and not negative. He tacitly admits that we are obliged to regard the Absolute as something more than a negation,—that our consciousness of it is *not* 'the mere absence of the conditions under which consciousness is possible[z].'"

A few pages later, without any more argument relevant to our present subject, he thus summarises the matter:—

"To sum up this somewhat too elaborate argument:—We have seen how in the very assertion that all our knowledge, properly so called, is Relative, there is involved the assertion that there exists a Non-relative. We have seen how, in each step of the argument by which this doctrine is established, the same assumption is made. We have seen how, from the very necessity of thinking in relations, it follows that the Relative is itself inconceivable, except as related to a real Non-relative. We have seen that unless a real Non-relative or Absolute be postulated, the Relative itself becomes Absolute; and so brings the argument to a contradiction. And on contemplating the process of thought, we have equally seen how impossible it is to get rid of the consciousness of an actuality lying behind appearances; and how, from this impossibility, results our indestructible belief in that actuality[a]."

The last chapter is on "The Reconciliation between Religion and Science." He has shewn that all the lines of argument converge to the same conclusion,—"that the reality underlying appearances is totally and for ever inconceivable by us[b];" and "why, from the very nature of

[z] "First Principles," p. 92. [a] Ibid., pp. 96, 7. [b] Ibid., p. 98.

our intelligence, it must be so[c]." We have also seen that "though the Absolute cannot in any manner or degree be known, in the strict sense of knowing, yet we find that its positive existence is a necessary datum of consciousness ... and that thus the belief which this datum constitutes, has a higher warrant than any other whatever[c]." Here then is the "basis of agreement[c]"—"the conclusion which reconciles Religion with Science[d]." He continues:—

"Common Sense asserts the existence of a reality; Objective Science proves that this reality cannot be what we think it; Subjective Science shews why we cannot think of it as it is, and yet are compelled to think of it as existing; and in this assertion of a Reality utterly inscrutable in nature, Religion finds an assertion essentially coinciding with her own. We are obliged to regard every phenomenon as a manifestation of some Power by which we are acted upon; though Omnipresence is unthinkable, yet, as experience discloses no bounds to the diffusion of phenomena, we are unable to think of limits to the presence of this Power; while the criticisms of Science teach us that this Power is Incomprehensible. And this consciousness of an Incomprehensible Power, called Omnipresent from inability to assign its limits, is just that consciousness on which Religion dwells[d]."

He then commends Religion for having always discerned and insisted on this ultimate verity; shews that amidst all its errors it had this soul of truth; remarks that Science has always been the agent for purifying Religion from its errors, and that, like Religion, it has often fallen short of its office; shews that the faults of both Religion and Science have been faults of imperfect development,—that, in other words, Religion and Science have been in conflict from the imperfect separation of their spheres and functions. He then continues:—

"Religion has from the first struggled to unite more or less Science with its nescience; Science has, from the first, kept hold of more or less nescience as though it were a part of Science. Each has been obliged gradually to relinquish that territory which it wrongly claimed, while it has gained from the other that to which it had a right; and the antagonism between them has been

[c] "First Principles," p. 98. [d] Ibid., p. 99.

an inevitable accompaniment of this process. A more specific statement will make this clear. Religion, though at the outset it asserted a mystery, also made numerous definite assertions respecting this mystery—professed to know its nature in the minutest detail; and in so far as it claimed positive knowledge, it trespassed upon the province of Science. From the times of early Mythologies, when such intimate acquaintance with the mystery was alleged, down to our own days, when but a few abstract and vague propositions are maintained, Religion has been compelled by Science to give up one after another of its dogmas—of those assumed cognitions which it could not substantiate. In the meantime, Science substituted for the personalities to which Religion ascribed phenomena, certain metaphysical entities; and in doing this it trespassed on the province of Religion; since it classed among the things which it comprehended, certain forms of the incomprehensible. Partly by the criticisms of Religion, which has occasionally called in question its assumptions, and partly as a consequence of spontaneous growth, Science has been obliged to abandon these attempts to include within the boundaries of knowledge that which cannot be known; and has so yielded up to Religion that which of right belonged to it. So long as this process of differentiation is incomplete, more or less of antagonism must continue. Gradually as the limits of possible cognition are established, the causes of conflict will diminish. And a permanent peace will be reached when Science becomes fully convinced that its explanations are proximate and relative; while Religion becomes fully convinced that the mystery it contemplates is ultimate and absolute[e]."

A few lines later he says:—

"Thus the consciousness of an Inscrutable Power manifested to us through all phenomena, has been growing ever clearer; and must eventually be freed from its imperfections. The certainty that on the one hand such a Power exists, while on the other hand its nature transcends intuition and is beyond imagination, is the certainty towards which intelligence has from the first been progressing. To this conclusion Science inevitably arrives as it reaches its confines; while to this conclusion Religion is irresistibly driven by criticism. And satisfying as it does the demands of the most rigorous logic at the same time that it gives the religious

[e] "First Principles," pp. 106, 7.

sentiment the widest possible sphere of action, it is the conclusion we are bound to accept without reserve or qualification[f]."

He then combats the notion that "though the forms of our consciousness are such that the Absolute cannot in any manner or degree be brought within them," it is yet incumbent upon us to "represent the Absolute to ourselves under these forms[f];" and states that he cannot admit any such "radical vice in the constitution of things[f]." On the contrary he contends "duty requires us neither to affirm nor to deny personality[g]" in God; and he makes the startling statement that the true conception of the Unknowable may be a mode of being as much transcending Intelligence and Will as these transcend mechanical motion. The following are his words:—

"In the estimate it implies of the Ultimate Cause, it does not fall short of the alternative position, but exceeds it. Those who espouse this alternative position, make the erroneous assumption that the choice is between personality and something lower than personality; whereas the choice is rather between personality and something higher. Is it not just possible that there is a mode of being as much transcending Intelligence and Will, as these transcend mechanical motion? It is true that we are totally unable to conceive any such higher mode of being. But this is not a reason for questioning its existence; it is rather the reverse. Have we not seen how utterly incompetent our minds are to form even an approach to a conception of that which underlies all phenomena? Is it not proved that this incompetency is the incompetency of the Conditioned to grasp the Unconditioned? Does it not follow that the Ultimate Cause cannot in any respect be conceived by us because it is in every respect greater than can be conceived? And may we not therefore rightly refrain from assigning to it any attributes whatever, on the ground that such attributes, derived as they must be from our own natures, are not elevations but degradations[h]?"

He then implies that it is a part of "the impiety of the pious[i]" to imagine, as is done by "one of high repute among religious thinkers," that the Universe is 'the mani-

[f] "First Principles," p. 108. [g] Ibid. [h] Ibid., p. 109.
[i] Ibid., p. 110.

festation and abode of a Free Mind, like our own; embodying His personal thought in its adjustments, realizing His own ideal in its phenomena, just as we express our inner faculty and character through the natural language of an external life[k].' After a few pages of this sort he sums up the whole argument of the Unknowable by declaring "that it is alike our highest wisdom and our highest duty to regard that through which all things exist as The Unknowable[l];" and in a few pages more he closes the whole Part.

Now we saw that, through the first three chapters, the entire argument in support of the generalization that the Power manifested in the universe is Unknowable, was made to rest on the inability of man to unify the Infinite and the Absolute, and to understand the ultimate nature of familiar scientific and philosophical concepts. Probably it will have been evident to the reader that the whole argument advanced in the fourth chapter, on "the Relativity of all Knowledge," is but the same staple of thought presented in another form. The analysis of the *product* of thought is only an analysis of scientific concepts. It does nothing more than travel over the general reasoning of which the former chapter, on "Ultimate Scientific Ideas," was the particular and more concrete application. The analysis of the *process* of thought we have seen is only another presentation of the proof, backed up by the authority of Hamilton and Mansel, that all our thought is only relative,—only of the Conditioned; and that into the region of the Unconditioned,—wherein both the Infinite and the Absolute reside,—it is not our province to enter. And at the same time that we prove our inability to conceive the Absolute, we yet, so Mr. Spencer contends, are compelled to assert that there is an Absolute; and he comes very near saying, if he does not actually say, *that thought is compelled to assert the existence of an entity which thought cannot conceive.*

We have now then examined this abstract Unknowable,

[k] "First Principles," p. 111. [l] Ibid., p. 113.

and have forced it to disclose its entire content. Two propositions sum it up.

1. All Ultimate Scientific Concepts, Consciousness and Self, are Unknowable: we cannot conceive or comprehend them.

2. The Infinity and Absoluteness of the First Cause are Unknowable. If now we examine the first of these propositions we shall find, I think, that it is reducible into the second proposition. The concepts which it states to be unknowable could not be known save by one who could comprehend the *absolute.* This can easily be proved. All our consciousness,—whether of scientific concepts or of self,—is a *relation;* and all relation is a complete negation of the absolute, which can stand in relation to nothing. To say indeed that all our knowledge is relative,—to assert "relativity" of it all,—is tantamount to saying that none of it is Absolute; and hence that the Absolute marks out all that is to us Unknowable. Thus the first proposition is only a mode of the second.

The generalization then that the Power manifested in the universe is Unknowable,—the only generalization, be it distinctly noted, on which the entire fabric of Agnosticism rests,—has we find, as its only foundation, the fact that we are unable to conceive, and *to reduce to logical unity, the three concepts of Infinite, Absolute and Cause.*

We have now seen that Mr. Spencer allows that we must assert the existence of the Absolute, and of the First Cause. Simply then because we cannot conceive the Infinite,—and especially cannot logically unify that with the Absolute,—we are bidden to regard the First Cause as utterly unknowable.

When before we examined what sort of a mind that must be which could comprehend the Infinite, and unify it with the Absolute, we saw that it must itself be both Infinite and Absolute,—must be without any limits, and must also be the Totality comprehending all existences. In other words that mind must have the attributes of Deity! So that Mr. Spencer's whole statement means only the truism that Man is not God!

Some reasoning of his already quoted proves still more conclusively that to comprehend the Infinite and the Absolute would require a mind which is Infinite and Absolute. Thus he says :—

"The First Cause, the Infinite, the Absolute, to be known at all, must be classed. To be positively thought of, it must be thought of as such or such—as of this or that kind. Can it be like in kind to anything of which we have sensible experience? Obviously not. Between the creating and the created, there must be a distinction transcending any of the distinctions existing between different divisions of the created [m]."

The Infinite and Absolute First Cause is unlike "in kind to anything of which we have sensible experience,"—there is a distinction between it and us which transcends any of our distinctions. Yet to be known it must be recognised as like. Clearly then no one could recognise it as like,—could know it,—save one who has that likeness, i.e. one who is Infinite and Absolute.

A few lines later Mr. Spencer says :—

"The Infinite cannot be grouped along with something that is finite; since, in being so grouped, it must be regarded as not infinite [m]."

If then to know a thing we must group it, and if the Infinite can only be grouped with the Infinite, it is clear that nothing less than our possession of the attribute of Infinity can enable us to know it.

Mr. Spencer continues :—

"It is impossible to put the Absolute in the same category with anything relative, so long as the Absolute is defined as that of which no necessary relation can be predicated [n]."

As then to know the Absolute it must be put in "the category" of the Absolute, it is clear that no one whose thought is relative,—i.e. who is not Absolute,—can ever know the Absolute.

Mr. Spencer even enables us to prove that not only must one who knows the Infinite and the Absolute be

[m] "First Principles," p. 81. [n] Ibid.

both Infinite and Absolute,—i.e. must possess the attributes of Deity,—but he must be *the* Infinite and *the* Absolute, i.e. must be Deity Himself. He says:—

"How self-destructive is the assumption of two or more Infinites, is manifest on remembering that such Infinites, by limiting each other, would become finite. And similarly, an Absolute which existed not alone, but along with other Absolutes, would no longer be an absolute but a relative[o]."

As then to know the Infinite and the Absolute would be to group them with like,—i.e. with Infinite and Absolute—conceptions; as such conceptions could not reside in any save an Infinite and Absolute Being; as there can be only one such Being in the universe; it is clear that to know that Being necessarily implies the rank and dignity of the supreme God! The Power manifested in the universe is Unknown and Unknowable means only that Man is not God!

We have now then forced Agnosticism to shew itself,—we have seen the philosophical foundation on which it rests,—and there has also been made evident something of its moral tone and temper. It is to be hoped and believed that Mr. Spencer is much nobler than many of his disciples. It cannot be disputed that many have given up Theistic principles, and have ceased to join in Theistic worship, because they have become convinced by Mr. Spencer's reasoning that God is Unknowable. Let us now force from such a man a confession of his mental and moral tone.

"Because I am not myself the Infinite and the Absolute, I decline to believe in the existence of any Infinite and Absolute Personality!

"Because I am not myself the Supreme God, I decline to believe that there is a Supreme God at all!

"Because I do not comprehend in myself the entire Totality of existence I decline to believe that there is any Person who does comprehend that Totality!"

No words can be needed to rebuke, and shew the folly

[o] "First Principles," p. 81.

of, such a tone of mind. Of reasonable intellectual humility it has not a trace. What is its philosophical justification we have now surely made evident:—it seems to me that it is now proved to be a mere philosophical bubble, which only needs the prick of a logical spear in order to be made to collapse at once; and I think that it may safely be left to perish; and the Agnostic cult quietly to die away. Men having a fair share of common sense will, I think, see that it can advance neither intellectual nor moral claims which entitle it to the respect of mankind.

Before passing on to the next chapter let us note that Mr. Spencer accepts, and approvingly quotes, all the reasoning on which Sir William Hamilton based his famous "Law of the Conditioned." That Law,—put in plain English,—is simply that we are mentally shut up within a certain area,—the area of the Conditioned,—within which area all our thought must be carried on; that the limits bounding our mental vision are logical contradictories,—viz., the Infinite and the Absolute;—that *they appear contradictories to us from the fact that we cannot unify them,* which unification could be accomplished only by *one who could comprehend the Infinite and the Absolute.* Consequently all our thought is of the Conditioned; within that area Reason rightly carried on is infallible, and affords us an absolutely impregnable foundation for all Philosophy and all Science; but, outside of that area,—within the realm of the Unconditioned,—our Reason is perfectly valueless, and can prove logical contradictories with equal facility. Thus our Intelligence is proved, not false or untrustworthy, but only limited; we are shut up within a region we cannot transcend, but we can as it were see the roof,—the Conditioned aspect of the Unconditioned, the relative aspect of the Absolute, as Mr. Spencer calls it,—which limits our vision. Accepting this Law,—and the reasoning on which it rests we see Mr. Spencer has accepted,—we secure, by one and the same act, an absolutely unassailable foundation for all human knowledge; and, at the same time, ample

scope for rational and manly confidence in those high religious verities, which cannot be understood by us because of the limitation of our faculties. As soon as we can prove any doctrine to lie in the realm of the Unconditioned,—either of the Infinite or the Absolute,—we know at once we have not—(and, so far as we can see, never shall have)—any faculties which can enable us to comprehend it. That then is the region sacred to Deity alone; destined evermore to command our reverence. But we have large and ample space allotted to us,—the whole region of the Conditioned,—which contains all finite existence; and within this region our attitude should be one of faith and trust. The outcome of divine Philosophy is not the nescience and pessimism of the Agnostic creed:—rather is it the calm, clear knowledge of the sons of God; the stately Reason which can comprehend God's universe; the deep reverence which recognises a Veil that no hand may raise.

Accepting this Law, the last intellectual hindrance in the way of believing the Infinite Causal Intelligence to be a Personality also vanishes: and hence it allows of the unification of every truth which Philosophy and Revelation furnish. It shews us that concerning the Infinite none of our reasoning avails,—that the region of the Infinite is a region we cannot possibly enter,—and hence, that it is not competent for us to decide whether Personality is, or is not, inconsistent with it. Practically, therefore, the whole question is taken out of our sphere. Infinity ceases to be any difficulty in the problem; it is like a troublesome surd which, by means of this Law, we eliminate; and now the problem can be worked out, free from it, to a just conclusion. If, on other grounds, we find reason to infer that the Causal Intelligence is a Personality, this evidence stands good with nothing that runs counter to it. Reason is satisfied, and can be silent. Then the affections of the heart may justly rise up, the sanctities of the moral nature, the aspirations of the spirit, the potencies of the Will; and all these together form one grand argument that a Spirit, a Will, a Person,

in measure like ourselves, is the origin of all things; and that the Unknowable is a Father—God. Seeing this, it becomes a sublime joy to know that our Father is greater than we are; and that for ever there will be in His Being a region unapproached and unapproachable, mysteries before which archangels veil their faces, glories Unknown and Unknowable.

CHAPTER II.

THE KNOWABLE ELEMENT BOUNDED BY THE UNKNOWABLE.

WE have now seen that the assertion that the Power manifested to us in the universe is Unknowable resolves itself into the proposition that we are not able to go on the extreme verge of that defining line which, to speak paradoxically, bounds the Infinity of God. We have further resolved this inability on the part of man's mind into the mere truism that man is not as great as God. That region or that defining line marks out the limits of the Unknowable. But the creed of Agnosticism goes very far beyond this statement, and infers that, because we cannot reach the extreme limits of God's Being, therefore we can know nothing whatsoever of the area lying between those limits. Even Mr. Spencer, although much wiser and nobler than many Agnostics, yet holds up to ridicule the notion that the character of God is manifested in His works. But it seems to me quite illegitimate and unphilosophical to infer that, because you cannot stand on the extreme verge of an area, therefore you can know nothing of the territory of that area that lies right in front of you. To say this is to assert a principle contradicted daily by every one of the sciences, by Philosophy, by Mr. Spencer's writings, by every man's common sense. A little consideration will shew its utter absurdity.

The ultimate constitution of Matter, we saw, was shewn by Mr. Spencer to be just as unknowable as the Power manifested in the universe; and to be unknowable for the very same reason. Because then we cannot comprehend that ultimate constitution, shall we say that we know nothing whatever about the phenomena that Matter manifests? Because we do not know the Absolute element in Matter shall we say that we know nothing of the relative

aspect that Absolute manifests? Shall we declare that to us the face of the universe is a mere blank—a great unknowable,—bearing no characters that we can decipher? Is Science content to put up with this nescience? Will she blot out her record of mighty achievements, erase the proud roll of her discoveries, confess that nothing whatever is known or can be known of the universe? That is the fate which Agnosticism has in store for her. The logical Agnostic, who, because he cannot comprehend the mighty propositions which express the extent of the Being of God, says that God is unknowable, must perforce admit that because he cannot comprehend the ultimate units of Matter, he therefore knows no scientific truths, no classifications of like units, no laws of nature, and instead of the fair and ample page of knowledge can present only a *tabula rasa*, where all is blurred and confused, and no single line can be deciphered.

The like absurdities start up in every direction. Because the ultimate constitution of Space is unknowable shall we therefore say that we know nothing about that which fills Space, nothing of the outside world, nothing of our surroundings, nothing of our own bodies, nothing of the beauty in clouds and land and sea, nothing of history with its grand progression, nothing of the geologic ages; and shall we go on to any other climax of absurdity in seeking logically to maintain an indefensible proposition? Shall we say that because the ultimate element in Motion is unknowable, therefore we know nothing whatever of the modes which that Motion manifests, and shall we thus blot out the sciences of Chemistry and Mechanics at one fell stroke? Shall I say that because the ultimate constitution of Mind is unknowable, therefore I cannot discern either sense or reason in Mr. Spencer's system? At the very moment I am admiring his relentless logic, shall I say that I cannot perceive his words to contain or express any Mind whatever,—that they may be only a fortuitous concourse of letters which have come together without any Design, Invention, or Intelligent arrangement? Higher absurdity one would think could not be reached; yet this

is the very absurdity which is structurally inherent in the Agnostic creed. Because the ultimate Substance of God is Unknowable, therefore, says the Agnostic, we can know nothing whatever of those aspects of His Being which are related to us, and are manifested in the universe. But if we cannot decipher God's writing in Geology, how can we be able to decipher the reflection of some of that writing presented in Sir Roderick Murchison's "Siluria?" Let us be consistent, whether we are Agnostics or Theists. If God be Unknowable, the whole universe is unknowable as well; Art and Science are alike impossible, if Natural Theology is impossible.

Let us present the matter in another aspect, and shew to what the Agnostic creed would lead us in affairs that are somewhat nearer than the Absolute to the common doings of men. It is quite conceivable then,—indeed it is a certainty,—that there are depths in Plato, Kant, Handel, Newton, Michael Angelo, Milton, Shakspere, which the great majority of men are unable to fathom. The conditions within which the minds of those immortals were sphered, were larger and nobler than those which obtain in other men. They lived in, and roamed over, ampler mental spaces than are at present open to most of us. Their larger and wider region is therefore, to us, a sort of Unconditioned. We are not able to condition or comprehend it. Our consciousness is not large and deep and high enough to mirror faithfully all the thoughts that crowded their minds,—thoughts too great and high to find adequate expression in their works. Shall we then say that, because we cannot comprehend the uttermost limits of their being, they are to us unknown and unknowable? Shall we allow,—will Mr. Spencer allow—that we know nothing of Kant's Philosophy? Shall we surrender Plato to the realm of nescience? Shall we declare we find no trace of Invention or Design, of Majesty or Beauty in "Paradise Lost," or "Hamlet," in the Sistine Chapel or the "Principia?" Shall we admit that the whole universe of human knowledge is a perfect blank,—a vast extent on which we trace the one word "Unknowable?"

To say this would be not less than consummate nonsense. Yet that is precisely the Agnostic inference. Because God is Unconditioned, therefore, says the Agnostic, we can know nothing whatever of Him,—can trace in that universe which is His great poem, neither Invention, nor Design, neither Intellect nor Goodness! With every desire to put myself at the Agnostic's standpoint, and judge his creed fairly, I am utterly unable to discern that his inference has any more justice than the former absurdity.

It will scarcely be replied, I imagine, by any one claiming the name of a philosopher, that we have sufficient information concerning the authors of those works to satisfy us that they were men, and had minds and powers somewhat like our own; but that we have no such evidence concerning the Power manifested in the universe. That wise thinker, Du Bois Reymond, declines to believe in the existence of a God until he is shewn a huge brain, like our own, fed with warm arterial blood, under proper pressure, and with ganglia adapted to the size of such a Mind! But no philosopher, surely, could urge that Mind can only be evidenced by proving that it existed in a man[a]. The credentials of Mind are plain and palpable, and they carry with them their own evidence. If the score of Handel's "Messiah" had come down to the earth in a meteor, which we knew could not have been originated in our planet, I cannot think any man will venture to declare that we could not read in it the characters of Intelligent Design. Such a statement would appear to me opposed to common sense. Our Intelligence asserts, by an inherent right, its own competency; it can read the sign-manual of a Mind like its own; and it demands no extrinsic evidence to satisfy it of the correctness of its conclusions. No doubt the evidence submitted to each man must be of a kind, and in a department, upon which he is competent to pronounce a judgment. But, securing

[a] Considering the relatively obscure and feeble evidences which are held to prove that some of the flint knives of the Palæolithic age must have been produced by design, it can hardly be possible that men of science will contend that from a given product alone, we may not infer a designer.

this, I am compelled to hold that a poet, who can feel the charm of glorious scenery, may be as perfectly certain that the universe was fashioned by a Poet, as he is certain that there is poetry in "Paradise Lost." In each case his judgment is an induction resting on ten thousand facts; and it is just as valid in the one case as in the other. An inventor again, or any one conversant with the marks of Design, may be as certain that the universe displays Invention and Design as he is certain that they are displayed in the Steam-Engine. A fossil may reveal to an instructed eye the marks of Intentional arrangement, as distinctly as it does reveal to an experienced Palæontologist the position of the stratum in which it was found. A philosopher may read a deep Philosophy in the structure of the universe, just as certainly as he may read a Philosophy in the structure of Mr. Spencer's system. The two things must stand or fall together; if we cannot interpret the larger universe,—the macrocosm,—and decipher its characters, neither can we interpret the universe of human works,—the microcosm,—and tell what is its superscription.

Taking then the Unknowable as only the defining line of the vast framework in which the universe is set; and asserting, in virtue of our common sense, our competency to decide what are the characters written in the area of which that framework is only the limit:—let us examine the aspect the universe presents, and endeavour to make out the characters it bears. In other words, let us try to ascertain what is the Knowable element which covers over the area bounded by the Unknowable.

1. That Mind exists is one of the most certain truths of all knowledge. This has been already proved in a previous chapter. It can hardly be necessary either to recapitulate any of the arguments, or to offer any others in support. To deny it involves a host of absurdities. Chiefly,—or at least most convincing to a scientific mind, —this, viz., —that if Mind does not exist, the entire structure of Science falls at once into a shapeless ruin. Take any common fact of Science, say that the human

lungs exhale carbonic acid. How is this experimentally proved? By shewing that the air which issues out of the lungs makes lime-water to assume a milky appearance. What then is this evidence of milkiness? It is the white colour of the fluid. What causes the sense of whiteness? A difference in the lengths of the rays of light as they impinge upon the retina. Those waves of light then set the plexus of retina-nerves in motion, and the nerve-currents transmit the motion until it reaches the brain. All then that the brain receives is motion. Now if there is no Mind to interpret this motion where is the scientific fact? How can you travel from the motion of a nerve molecule to the fact given by consciousness, — which Science must have, — save on the hypothesis of an interpreting Mind? Without Mind, Science has no fact on which to build. And in the same way, as was before shewn, she has without Mind neither processes, nor results. Until Mind affirms its own competency, and therefore affirms its own existence, Science cannot know that the way she proceeds is right or valid, and cannot know that the Laws she formulates are more than an idle dream. But the whole structure of Science—facts, processes, results—stands impregnable, and impossible to be banished from the universe; just as impossible then is it to dislodge from the universe the existence of Mind.

2. Mind can be originated only by Mind. This is a simple fact of consciousness, which has been proved over and over again. No effort enables us to think that the motion of a nerve-molecule could give birth to that immaterial Mind whose existence we have just concluded is one of the most certain facts of the universe. Professors Tyndall and Huxley, along with Mr. Spencer, reject in intellectual scorn the notion that consciousness can represent, as one and the same, a fact of consciousness and the oscillation of a nerve-molecule. "The passage from the physics of the brain to the corresponding facts of consciousness is unthinkable[b]," says Professor Tyndall. "No

[b] Address to the Physical and Mathematical Section of the British Association, 1868.

effort enables us to assimilate them[c]," says Mr. Spencer. Molecules and their motions, implies Professor Huxley, are only the *x's* and *y's* with which we work our equations, and are not the unknown entity they only symbolise[d].

If then no effort enables us to travel from one to the other, it is clear that no effort can enable us to think that one originated the other. Mind only we are forced to think could originate Mind; Matter only be changed into Matter. How Mind could originate Matter lies in the region of the Absolute, and is therefore, we have proved, a mystery we cannot enter upon. Our Minds demand an Originating Mind; the Cause that gave us being is Intelligent.

Thus upon this Unknowable,—the Infinite and Absolute First Cause,—we can now decipher the word Intelligent.

3. Mind gave shape to the Matter of the universe.

This must follow as a necessary corollary from the truth we have just arrived at, that the First Cause of all things is Intelligent. For it is the very mark of Intelligence that it shall act intelligently, with a clear prevision of a certain Design to be realised, and an intelligent and wise choice of the means necessary to be employed to carry out that Design. But this is utterly inconsistent with the notion, either that Matter shaped Mind, or that Matter shaped itself. If Matter shaped Mind there can be no Intelligence in the universe, which we have just decided to be the climax of absurdity. If Matter shaped itself, this is to endow it with all the powers of Mind, which we have many times proved it could not possess;

[c] "Principles of Psychology," vol. i. p. 158.

[d] The quotation runs thus: "The man of science, who, forgetting the limits of philosophical enquiry, slides from these formulæ and symbols into what is commonly understood by *Materialism*, seems to me to place himself on a level with the mathematician who should mistake the *x's* and *y's* with which he works his problems for real entities, and with this further disadvantage as compared with the mathematician, that the blunders of the latter are of no practical consequence, while the errors of systematic materialism may paralyze the energies and destroy the beauty of a life."—Lay Sermons, pp. 160, 1.

and moreover all the Mind in the universe still remains, on this supposition, unaccounted for. Consequently the only tenable belief, when we have once proved that the First Cause is Intelligent, is that that Intelligence was employed to design and give shape to the Matter that is in the universe. This fits solidly and structurally into all that has gone before. Arrived at *à priori*, it has also not a few evidences of great strength of an *à posteriori* character. Thus we saw, in "Principles of Biology," that Mr. Spencer shews weighty arguments for holding that Function determines structure;—that the invisible and immaterial Power which acts on the organism, the *vis* which propels it—determines the lines along which it shall develop; and the structure which, by developing along those lines, it shall build up. He shews that this is deducible from Evolution on *à priori* principles. For this he gives two reasons;—1. "Organic matter" in a "homogeneous state must precede organic matter" in a "heterogeneous" state. But organic homogeneous matter has life and function, not till it becomes heterogeneous has it structure. Then, 2. "Actions are the *substance* of life," "the adjustment of them constitutes its *form*;" "then may we not say that the actions to be formed must come before that which forms them—that the continuous change which is the basis of function must come before the structure which brings function into shape[e]."

It is of the last importance to note that Mr. Spencer holds this principle,—viz., that Function determines structure,—to be a cardinal principle of Evolution; holding good over large portions, and probably over the whole, of the system. But if the *use* to which a thing is to be put, —the function it is to perform,—is made to determine its shape, it seems to me quite clear that this amounts to the statement that Intelligence fashions that shape. For how otherwise can that function be determined,—what shall decide the direction of the lines along which that structure shall develop? Mr. Spencer may reply that the character of the function, (the direction of the lines the developing

[e] "Principles of Biology," vol. i. p. 167.

structure shall take), is determined by mechanical principles,—the necessary corollary from the "Persistence of Force." Be it so. But it is determined by *principles*, which are themselves only expressions of Intelligence. The mere fact that the principles on which Mechanics is founded are also employed to fashion organic structures does nothing whatever to disprove a Formative Intelligence in fashioning those structures; it only links mechanics and organic life into one vast unity, and stamps the entire universe with the marks of the same Intelligence. If one sublime Law be actually demonstrated to account for all movements of Matter, whether inorganic or organic, that amounts to nothing more than saying that the Intelligent First Cause chose, at the very first, a road by which He saw He could reach all things; and, having entered on this one way, has seen no reason whatever at any time to depart from it. That Law can be read only by Intelligence; and, in asserting our competency to read it, we assert, *ipso facto*, the Intelligence of Him from whom it came.

Here we come to the Teleological aspect of Evolution. This is too great a matter to be entered upon here, and it will be taken up in the next chapter. I hope then to shew that Evolution bears, over its whole area, many marks of Moral Design; and that none of its doctrines or corollaries are inconsistent with such a Design, or unworthy of the character of an All-wise and All-perfect Being. Regarding this then as provisionally accepted, it seems to me that these three arguments coalesce into a solid and compact unity, and afford, in their union, proof that Mind shaped the Matter of the universe. We saw that this was a necessary deduction from the truth already proved that the First Cause is Intelligent. We saw that it is a structural doctrine of Mr. Spencer's system that Function,—which is an Intelligent principle,—shaped structure, which is the organized Matter of the universe. We saw that even allowing all Function to be determined by one principle, yet that principle is an expression of Intelligence. We are to see that the one great Law

which shaped the universe is perfectly consistent with the notion that it was designed by a Moral Agent; and in asserting our competency to pronounce it a Law,—the image of a Law of Intelligence in our own minds[f],—we, at one and the same moment, assert that he who embodied it in the universe was Himself an Intelligent Cause. Joining then all these arguments into one, it seems to me that Mind is proved to have shaped the Matter in the universe.

4. To say that Intelligence controls and directs all the Matter in the universe is to say that all the Laws of Nature bear the stamp of Design; because the Laws of Nature are only the lines along which the Matter moves. It is of no import if all those Laws can be traced to one principle, since that principle is proved to be an expression of Intelligence. The very vastness and multiplicity of the Laws, and the grandeur and complexity of the results attained by them, only stamp with a higher character the nature of the Intelligence by whom they were originated. The whole of their complicated net-work, with their mutual dependences and interpenetrations, must have been known unto Him, and designed by Him; and can be only the projection of His Mind and Will in material forms. Expressible simply as modes of intellect, they are, in a yet higher sense, modes of Will; and hence are all intended to endure, and to subserve great and still more important ends. They are only a broad road along which the Intelligent First Cause moves to bring about higher results; but every one has been distinctly and designedly shaped. That the universe bears marks of Design has been frequently shewn:—it is now generally held that Evolution has made the Design argument untenable;—but if we succeed in shewing that Evolution itself bears distinctively Teleological marks, this will bring in the whole structure of Law, *en bloc*, as contained within, and a designed part of, the one master principle by which it was called into being.

5. Regarding then the whole net-work of Law as de-

[f] Perhaps this will be considered an anthropomorphism. This is dealt with at page 271 of this volume.

signed, it is evident that what is proved to be the outcome of the whole of Law must also have been designed; and can hardly be other than the mark which that Law was specially intended to reach. As then Life is the outcome of the whole principle of Evolution, it seems clear that Life was designed; and that the whole structure of previously existing Law was thrown up in order to make a foundation on which Life might stand.

6. Some of the most certain Geologic Laws,—agreeing with the general principle of Evolution,—make evident that the Power manifest in the universe was steadily pressing on to an ever increasing development of life. It is quite clear that through the Geologic periods, "an increasing purpose runs." Organisms gradually display a higher complexity of structure: they increase in size and in power of motion: at length we mount up to the huge Saurians of the Oolite; and still onward from these we can see a much higher development; and the organs and powers of Intelligence have a relatively great preponderance. In Man, the crown of the whole series, there is by far the highest organization possessed by any creature; and, although relatively weak in physical strength,—when contrasted with many of the Carnivora,—he yet, in virtue of the supremacy secured to him by Intelligence, ranks higher than them all. Now we have before shewn that all the Laws of Nature are designed, and that their results are intended; clearly then, it has been by design that the higher life has supplanted the lower, and that Intelligence has been placed on the highest point.

7. We thus arrive at the conclusion that the whole Intelligence of man, as manifested in its various modes, —such as Politics, Philosophy, Art, Poetry, Science, Invention, Discovery, in fine, the whole bulk of human knowledge possessed at this hour,—has been the result of Design; and one of the results aimed at in the primary movements of Matter. As before, all Law was proved to be the outcome of design as soon as it was shewn that Mind had shaped the Matter of the universe, so now, the whole net-work of the human intelligence must come into the same cate-

gory, as soon as it is shewn that human intelligence has been aimed at. All the great men of the world, the schools of Philosophy and Science, the poets and thinkers who have aroused mankind, are similarly the outcome of the same Intelligent Purpose.

8. When we contemplate any extended intellectual fabric,—be it philosophy or poem, oratorio or history,—we are driven at once to allow that Intellect alone will not explain it,—that there is a subtle power which we distinguish as moral character, or moral purpose, which seems to transfuse it;—and that its intellectual aspect only marks out the lines along which this moral purpose runs. It cannot be necessary to prove what is implied every day in all our judgments of men's actions; and in all the systems of jurisprudence in the world. That is to say, Moral Qualities exist; they are, so to speak, woven in with the intellectual qualities; the intellectual qualities, as it were, only supply the framework, or at most the canvas, on which the moral qualities depict themselves, and shew the lineaments of the inner life. Now as we have agreed that all Law is the outcome of Design, as the moral qualities are only the expression of Laws, it follows that the moral qualities are the result of Design; and the steady purpose of the Intelligent First Cause in pressing on to the highest development of Life, and of Intellectual Life, may have been, and probably was, to secure those high moral qualities which, without such largely developed Intellectual life, could never have come into play.

Moreover it is the structural thesis of the "Data of Ethics" that the main result of Evolution—a massive and highly developed life—goes hand in hand with two other principles, one of which is the cardinal principle of Morality, and the other of which is a principle closely allied to it, and admirably adapted to secure its acceptance. A large life, high moral conduct, and the maximum of pleasure, Mr. Spencer has shewn, go hand in hand. Accepting this as a broad principle which stretches over the whole region covered by organic life, it seems to me not less than a scientific proof that the Intelligent First Cause designed

the union of the three: that He designed Life and Intelligence as a sphere in which Goodness might shew itself: and that He added joy as an inducement to each creature to press on to its highest development; and also because there is in His nature a yet higher quality than we have up to this time arrived at.

9. We saw, when considering Mr. Spencer's theory of the Moral Qualities, that he shewed a remarkable difference to exist between them and the Intellectual qualities; —viz., that, as guides to conduct, the moral sentiments have authorities in just the degree in which they are remote from the simple sensations; which is the exact reverse of what obtains with the faculties of intellect. That is to say, the most highly developed, and the latest originated, moral faculty is precisely that faculty which is the safest guide to conduct. It seems to me hard and unphilosophical to resist the conclusion that this latest moral product, though last in time, was first in design; and was always intended to be called into existence as the structural principle of conduct. But this latest moral product is what we know as Justice. Is it not then clear that it was always designed as the structural principle of conduct, and of society;—was meant to be the firm, supporting pillar of great human commonwealths? How inexplicable that, in the last development known to us, the main law of organic evolution—that primary sensations shall take precedence of, and bear down, secondary sensations,—should be entirely set aside, and the contrary law put in its place; unless we hold that this last moral product, which deposes every other law, was always the mark aimed at, —was the embryo destined in due time to come to life, and having all former processes as nothing more than the husk placed to keep it from harm.

10. To insist on Justice in human society,—to arrange all Law so that Human Life shall develop Justice as a structural principle,—is manifestly to lay down and enforce the whole Moral Law as the rule of conduct. It needs no argument that the whole of the second table of the Decalogue is but an amplification of the abstract prin-

ciple of justice. It only forbids trespasses upon the rights, the lives, the purity, the property, the reputation of others. The tenth commandment only extends this same law to the inner realm. Justice then, being the outcome of an Evolution which we have agreed is designed by the Intelligent First Cause, and Justice including within it the whole Moral Law, so far as regards man, we necessarily arrive at the conclusion that that same First Cause set up the whole Moral Law as the structural principle of Society.

11. But we can I think go a step further than this,—and I hold it to be one of Mr. Spencer's great services to a true philosophy of the Kosmos—that he has made this step possible. He has shewn more clearly I think than any one before, that the great mystery of Pain in the universe is perfectly consistent with the Moral Purpose of an All-good and loving Being; and he has made evident that that pain is so apportioned as to lead to the belief,—if not to compel it,—that it has been designed by the highest wisdom and love. What he says on this point is only concise and sententious; but single sentences mean vast generalizations; and, as we shall see, they express the main structural idea of his whole Philosophy. The passages have been already quoted, and only a few lines will suffice here. He says in "Principles of Psychology:"—"Generally speaking, then, pleasures are the concomitants of medium activities[g]." A little later he speaks of "the natural connexions between pleasures and beneficial actions and between pains and detrimental actions[h]." Again "pleasures are the incentives to life-supporting acts and pains the deterrents from life-destroying acts[i]." A little later the same statement is in substance separated. In the "Data of Ethics," again, he says, "we regard as good the conduct furthering self-preservation, and as bad the conduct tending to self-destruction[k]." The whole structure of the "Data of Ethics," (which work, as Mr. Spencer has told us, determined the structure of his whole system of Philosophy[l]) has, as its main principle, this same truth,

[g] "Principles of Psychology," vol. i. p. 277. [h] Ibid., p. 284. [i] Ibid.
[k] "Data of Ethics," p. 25. [l] "Data of Ethics," Preface, p. 1.

viz., that pain goes with actions injurious to the organism, pleasure with actions beneficial to it. Utility, Righteousness, Joy are indissolubly united as the central principle of the whole organic universe.

Now we have agreed that all Laws are the result of Design,—are the expression of the Mind and Will of the Intelligent First Cause;—and it is the merest trifling to think that what is proved to be the central principle of all organisms can be other than one of the greatest Laws, and therefore one of the most important results the Design was intended to compass. It is therefore, it seems to me, a demonstrated truth that the Power manifest in the universe has deliberately, and of set purpose and intent, arranged all Laws so that their action shall give pleasure to all organisms that are going right,—are living normally and naturally,—and pain to all organisms that are going wrong. Now when we consider the tens of thousands of adjustments in all departments of nature, which must have been taken into account before this main Law could have been devised, we have, it seems to me, a vision of far-reaching Purpose, profound Wisdom, unswerving Rectitude, combined with the highest gentleness and Love, that goes very near to shew, if it does not really shew, the character of the God of Love, written in large and unmistakeable symbols athwart His whole creation.

Let us note how this Law would operate on every creature. An organism is endowed with life, and it proceeds to develop that life; which has the necessary result of increasing the measure of such life. According to the measure of its life is the measure of its joy. When then it develops normally and naturally,—when it takes, that is, the straight high-road to a higher development,—it receives pleasure from such development;—must we not say as a reward for right conduct, and as an incentive to persevere in the same path? So living it hands on to its descendant a higher nature, a greater area of life, and a greater capacity for pleasure. By this means, it does a worthy life-work; it increases the sum total of life and happiness; it swells the volume of that tidal wave which makes for the right, the profitable, the pleasurable. In this way, the

humblest creatures join in the scheme of Creation; and the impassioned Psalmist, when he calls on all the lower animals to join in the great hallelujah of praise and thanksgiving, has lying deep within his words a demonstrated scientific truth.

If however an organism goes wrong,—develops abnormally and unnaturally,—a slight pain attends it,—surely for no other purpose than to turn it into the right path;—if it then turns into that path, it loses the pain, and begins to receive pleasure. Thus the pain that attends a departure, either to the right or the left, seems nothing more than a prickly hedge, set for the very purpose of keeping it right, and thus of leading it on to a higher pleasure. If on transgressing,—and suffering a slight pain to warn it back,—it will still persist in the same wrong path, a pain of a more severe character seizes it,—must we not say for two reasons;—to warn more sternly, and also to diminish the volume of its life, so that the suffering to itself and its descendants may be shorter? Since pleasure varies according to the area of life, must we not say that pain,—which is really only the correlative of pleasure,—varies in the same way? Manifestly then, to let the pain attendant on a creature's wrong doing diminish the volume of its life and pain, is to provide for it as gentle and tender a *euthanasia* as can well be conceived. If it will not work along the lines of love and goodness,—if it will render no service to any creature in the universe, but will set up its own little self as the all-important individual to whom everything must bow,—then the wisest and most merciful dealing is to let it perish, and make room for others. They have their rights as well as itself; and, if it will insist on defrauding them of what is just, a Righteous and Merciful Executive, loving them as He loves it, has scarcely any other choice than to arrange for its extinction.

It seems to me impossible to conceive a Law in which Rectitude, Benevolence and Love should be more wisely united. To my mind it goes very far towards shewing the justice of the contention of Leibnitz that this is the best

of all possible universes. If we conceive of a large household,—say consisting of five hundred persons,—the head whereof has arranged matters so that every duty,—every way of conduct which leads to the maximum of pleasure,—shall be a pleasure: and every wrong course,—every way which leads to the maximum of pain,—shall bring pain: if this law applies to every inmate, and to all the multifarious work which each may undertake, I think we should say, on contemplating the aspect of that household, that a Wisdom, Benevolence and Love, of the highest conceivable character, had contrived its arrangements. Certainly the wisest and kindest father, the dearest and sweetest mother, never made provision, in any earthly home, for the children most fondly loved, with anything approaching the minute love and tenderness which the great Father manifests to the entire household of organic life, over which His gentle Providence extends. We learn from Revealed Truth that it was the Father-instinct which led to Creation;—God wanted something to love and care for, and so He made us,—and now we have, in the very heart of modern science, a truth, which to the instructed eye, reveals a depth and tenderness of Fatherhood such as up to this time the heart of man hath never imagined.

12. All this fits solidly and structurally into what we have hitherto reached. We saw just now that the result of Evolution,—a result clearly aimed at,—had been to make the whole Moral Law the structural principle of all joyous conduct, and of all enduring society. This then being the main result to be attained,—so to speak, the Judicial and Legislative principle;—that working of Evolution which we have just traced is as manifestly the Constructive and Executive principle:—the mode, that is, in which the former principle was embodied in actual life. Intending to create a race of beings who voluntarily chose and observed the Moral Law as the rule of life, the Intelligent First Cause advanced to this end by binding pleasure to right, and pain to wrong; and, in this way, secured a powerful tidal wave which urged on to the right.

Clearly then our structure so far is logically coherent and strong.

13. We thus obtain three great Moral Principles as existing in the structure of the universe. These are Righteousness, Benevolence, and Love.

Now if Righteousness be the character of the Intelligent First Cause, and if He sums up in Himself all Life and all Happiness, (which we have already proved), it is very hard,—not to say impossible,—to conceive how He could make any creature, and give to that creature joy, save by linking that joy to a conduct morally right. How could He, even if He wished, take one element of His being,—joy,—and unite that to another element of which He disapproves? The First Cause is a Unity; what we call His attributes are structurally coherent; they cannot be separated; the happiness of His Being is only another aspect of His holiness. How then could He divorce happiness from holiness?—how make a creature which should obtain happiness in another way and sphere than that in which He obtains it? Surely no answer to this question can be given. At any rate it seems clear that He could do so only by forfeiting His moral character. If any action shews He is indifferent to right,—will reward wrong as highly as He rewards right,—it seems to me there is a fatal blot on His stainless Name.

But if the insistence on Righteousness be a necessary part of His character, it is not easy to conceive an arrangement by which this Law shall be enforced that more fully displays Benevolence and Love.

14. But there is a strange mystery of suffering in the universe. "Pain bound up with the existence of the very worms" wears a dark and sorrowful look. No doubt when we find that that Pain is but one of three things;—the deterrent from, or penalty for, wrong-doing;—the birth-throes consequent on bringing another creature into the world;—the self-sacrifice needed by each one to help forward other lives;—and these three aspects exhaust every iota of pain that the universe reveals,—then no doubt its sad and sorrowful look is seen to be only a

shadow which rests on a background of happiness and rejoicing. The *tout-ensemble* of Creation is joyous and hopeful. But still Pain does exist, and it is a problem with many how its mere existence can be reconciled with the rule of an All-wise and All-righteous Being. Can this existence of Pain be resolved into Benevolence; or must it remain as something not yet explained?

It seems to me that it can be so resolved, and that the Intelligent First Cause can be proved to display to us a higher and deeper love because He has ventured to allow Pain to be introduced into His universe.

Pain and pleasure are correlatives. This Mr. Spencer allows. Pain is the absence of pleasure; pleasure is the absence of pain; each one varies in inverse ratio to the other. If this be so, it would seem that if there had been no pain there could have been no pleasure. Only a universe of painless *automata* would have been possible;—men, women, all living things, nothing more than a collection of animated wax-work; sighs and tears, smiles and laughter, alike unknown. Clearly our world is a thousand-fold more joyous than such a universal doll's house would have been. The Intelligent First Cause at least gave us the honour of being men. He gave us the keenness and fineness of organization which bring us such mighty joys; and it is this delicacy of make which causes us also to be capable of mighty anguish. Both alike, pains and joys, are the index and measure of our greatness.

Let us ask again,—"Is pain the supreme evil of life?" A noble nature replies in an instant,—"Certainly not. Better all the pains that men have known than live in a wrongful fashion. Better the torture of the rack than be capable of stooping to the meanness of falsehood. Better an ulcerous cancer eating away the life than an ulcerous sin destroying the moral nature." And righteous men prove their sincerity in such statements by willingly enduring all the torture that malice can inflict rather than enter on a course which their conscience cannot approve. And it is not alone righteous men who so act. Every true artist cares little for ease and rest; and

voluntarily endures the pain that high art must bring. Many heroes who face danger and death, many wives who will share their husbands' lot, many brave workers who wear away through excess of toil to benefit men, fling away from them in contempt a life of inglorious ease, and willingly choose suffering as the highest joy they can find.

Once more let us ask,—"Should we like our world better without pain?" Would we, if we could, change into a painless state? Perhaps we think we should so prefer it, but that is not our true, deep self which so speaks. A life where there was no suffering would be a life without nobility, a life devoid of high aims and worthy purposes, a life destitute of sorrow because destitute of greatness, having no pleasures higher than those of the mere animal, and lacking the high strain which capacity for pain alone can bring. Such a life would not seem so joyous as our present condition. If we had grown up in it,—if all our associations were formed out of it,—still a single glimpse of the higher life in which pain is used to add intensity to joy, would be sufficient to dash all our delight, to fill us with a noble discontent, and to make us strive after some of the divine bliss of pain.

And now we reach the true statement,—that pain is the highest joy which life can bring. It is that which, above all other things, redeems life from triviality and poverty, and fills it with high and sublime meanings. Our capacity for pain, our endurance of pain, stamps us with the mark of immortality. We dare to fling away pleasure, as not worthy to satisfy the ambition we can sphere; we dare to covet pain, as more befitting those who have been so richly endowed. "Give us work to do, burdens to bear, suffering to endure, let us wipe away human tears and lighten human woes,"—this is evermore the cry of those in whom life is most fully developed; and it will be the increasing cry as the ages roll on. Mr. Spencer himself shews this in the "Data of Ethics." In allowing of the entrance of pain into our world, therefore, the Intelligent First Cause acted as a loving Father

who knew us to be nobler than we at first deemed ourselves to be; and knew that, by wise education, we could be made to exult in a degree of suffering from which at first we shrank. All such pains are birth-pains; they are only the throes over which the light of a living joy is playing. No mother will refuse the pain,—even if it involve the surrender of life,—needed to be borne to bring her child into the world; and no true man or woman but will scorn the pain that all worthy struggle must bring. If the pain is intense the joy exceeds it; if the flames play around the martyr's limbs, the martyr's inspiration more than sustains the spirit.

Undeniably, this is the aspect which the suffering they are called upon to endure wears to the noblest men. To them that suffering is nothing but a higher joy. They not only do not refuse it, they glory and exult in it. Said one of them, "Our light affliction, which is but for a moment, worketh for us a far more exceeding and eternal weight of glory[m]." Not of the glory of heaven, —the thrones and crowns of life,—was he mainly thinking, but rather of the glory of doing a great life-work, of being the brave and uncompromising opponent of wrong, of being a powerful factor in the emancipation and ennobling of the race. Sustained by this thought, he could count as a mere bagatelle the beatings, and shipwrecks, and imprisonment, which were his frequent lot.

It seems to me then that this point is now fairly proved. Pain is not only consistent with the rule of an all-loving and all-perfect Being, but it is the very highest point of bliss that mortals can reach.

We have now then examined carefully what is the aspect which the Infinite and Absolute First Cause, called by Mr. Spencer the Unknowable, presents to us; and what sort of a character we can read in the structure of the universe, admitted to have come from Him. Taking Infinity as simply expressing the framework of the conception, let us make use of it as a large canvas, on which

[m] 2 Cor. iv. 17.

we now paint, one after another, the lineaments we have proved to exist. We have seen then :—

1. That the Infinite First Cause is Intelligent.

2. That this Intelligence gave shape to the Matter of the universe.

3. That hence all the Laws of Nature are the result of Design.

4. That Life has been designed.

5. That the Design has been fashioned so as to produce an ever greater complexity and richness of life.

6. That all human progress, Science, Art, Philosophy, Politics, Governments,—and in fine the march of the race, —is the outcome of the same Design, and was contained in it.

7. That the Moral Qualities are the result of the same Design, and were aimed at from the first.

8. That the Design arranged to make Justice a structural principle of human society.

9. That in setting up Justice there was a setting up of the whole Moral Law as the pillar of the universe.

10. That the mode of making the Moral Law a structural element in life reveals a depth and tenderness of feeling, on the part of the Supreme Causative Being, never yet reached by any human father.

11. That hence the aspect of the universe is at least consistent with the supposition that the Supreme Causal Intelligence has in His character the highest degrees of Righteousness, Benevolence, and Love ; and it is quite inconsistent with the contrary supposition.

12. That even the Pain in the universe, when fairly analysed, brings to us a higher grandeur and joy ; and hence is a proof of a nobler Benevolence and Love.

Even at this point, it seems to me unphilosophical and unjust to say that a Power which wears such lineaments is Unknowable. Surely we have before us the outline of a character of the highest Majesty, Righteousness, Patience, Love. But the argument will be greatly strengthened by the following chapter.

CHAPTER III.

THE TELEOLOGICAL ASPECT OF EVOLUTION.

IT seems to be taken for granted by advanced modern thinkers that the old Design argument put forward by Paley is no longer tenable. Doubtless there is much truth in such a notion. The acceptance of the doctrine of Evolution unquestionably necessitates an entire reconstruction of that, and probably of many other opinions. The proof of Design which Paley urges clearly falls to the ground, if it be shewn that what seemed Design results from the operation of a mechanical principle. The whole matter is, in that case, as completely explained by reference to that principle as the movements of the heavenly bodies are explained by reference to the principle of gravitation.

Yet this only pushes the question one step further back. It does little more than shew that that Design has its roots far deeper in the structure of the universe than Paley believed. It only shews that it is the outcome of a far larger and more magnificent scheme than any he conceived. In his argument, the Intelligent First Cause was represented as fashioning an eye, an ear, a man, just as we should model a statue. The only greatness attributed to the Divine artificer above ourselves, arose from the higher greatness of His work. To many minds, such a conception seems seriously wanting in reverence. But now that Science has reduced the operations of the Intelligent First Cause to one comprehensive Law it has, it seems to me, placed the argument for Design on a deeper and more unyielding foundation than ever. We do not now form our inference from the mere surface appearance; we get down to the deep structural principle which is underlying all things. No doubt the areas of thought which must be brought into view in order to prove Design in the universe are far larger,—but the

argument derived from them, is, for that very reason, far more conclusive. Looking on one article, as Paley did, we might easily mistake cause for effect, and might infer that to be the result of Design which is only an inevitable consequence of some higher principle. But when, taking the standpoint of modern Science, we blend all laws into one, and, thus unifying the universe, behold the *tout ensemble*, it seems to me we have an argument for Design which is more comprehensive, more complete, more unassailable, than any yet presented.

Let us then travel over the main lines of the Evolution hypothesis, and note how entirely congruous they are with the notion that Conscience and the Moral Faculties were, from the first, the mark that was aimed at, and how the scheme is carried on throughout on a scale, and in a manner, worthy of the moral character of the God our natures seem to demand[a]. This plan will solidly bind together many high attributes. It will shew that the Infinite and Absolute First Cause possesses Intelligence, Omnipresence, Unlimited Power, Vastness of conception, The faculty of Design, Desire for Life and for Beauty, Gentleness, Joy in the higher forms of Life, Justice, Pity, Rectitude, Foresight, Patience, Benevolence, Love. Each of these aspects will, from time to time, appear. Of course the extent of the argument is such that a few hints are all that can be given. The "Teleological aspect of Evolution" might well afford matter for a whole volume larger than the present.

1. The one single Principle out of which everything has come is itself a principle of Intelligence. If we regard it as the Principle of Evolution, it is manifest that only an intelligence of a high order can arrive at it; and, if a comprehensive and powerful intelligence amongst men be needed to read it, when existing, clearly a no less com-

[a] To some slight extent this chapter travels over the same ground as the last, and hence there may be a little repetition. In the main, however, the last chapter shewed from *à priori* principles that our universe reveals in its structure the character of an all-righteous and all-loving God; the present chapter is chiefly *à posteriori*, but the two unite, and form a more solid whole.

prehensive and powerful Intelligence must have been needed to fashion it. The originator of every conception must be somewhat greater than one who can only master that conception when originated. And as that conception really represents all Science, as it is the largest generalization Science has yet reached, as all the truths Science has learned are needed as the facts on which it is based, it seems evident that the Intelligence by whom it was originated was greater, more comprehensive, and more profound, than the intelligence of all men of Science combined in one. Everything then that can be proved to result from this Principle of Evolution,—every Law it can be proved to call into being,—is necessarily, by that fact, shewn to be a Law arising from Intelligence,—the stamp of Designing Mind is placed upon it. If again we regard this Principle as the principle of the "Persistence of Force," we still arrive at that Principle only as a Law of our own Intelligence. Manifestly also two things are contained within it. There is the Force,—the δύναμις—which urges; and there is the *direction* along which that δύναμις is urged. It is this latter quality,—the direction,—in which Intelligence is chiefly seen. So that whether we look at the Principle from the *à posteriori* or the *à priori* point of view, we obtain the same result;—viz., that it is an intelligent principle,—it can only be arrived at by Intelligence, and it can have been originated only by Intelligence.

2. The unity of principle evidenced by Evolution is at once a mark of Power, Wisdom, Far-reaching Prevision.

It is inconceivable that this unity could be maintained save on the supposition that, before advancing a step to realise His conception, the Intelligent First Cause had in clear array before Him the vast assemblage of times, spaces, laws, operations, organisms, human faculties, societies, commonwealths, races, dynasties, thinkers, statesmen,—in one word, the whole universe, inorganic and organic, to its uttermost bounds in space and time. If one principle will account for the combining proportions in chemistry, the laws of logic, the movements of a mol-

lusc, the formation of an eye, the doctrines of political economy,—if we know this one principle to be the result of Intelligence,—then surely it is a proposition demonstrated by overwhelming argument that the Intelligence who originated that Principle must have had a perfect knowledge of all the results it would bring about; and must have chosen it because He saw in this way all those results could be attained. If the first step is the same as the last, the first step must have implied the last. In the first movements of the starry nebulæ, in the first stirrings of life, in the variety and multiplicity of that life, in the gradual growth and complexity of each organization, in the geologic operations, slowly moulding the earth into a residence for higher creatures, and in the mutual play and interaction of these forces, we have, I hold, a clear proof that the Intelligent First Cause was laying broad and deep the foundations of human society; and was intending that the outcome of the whole should be the far-reaching and splendid growth of human Intelligence and Civilization, Benevolence and Love. The whole scheme, carried forward on the scale of the universe, carried forward by the working of one single principle, attaining such an inconceivable variety by processes so simple, bears, to my mind, the unmistakeable stamp and sign-manual of God [b]. If ever we could trace a gap in nature's working, —if it seemed that the Power had ever run into a *cul de sac*, then, (unless that *cul de sac* were expressly intended), it might infer defect. But when we see one sublime path from beginning to end, it seems a demonstration that the Intelligent First Cause in taking the first step implied the last, and when fashioning molluscs was, in effect, fashioning men. The unity of principle is a mark of Power to which no limits can be set, of Wisdom which comprehends all the wisdom of our greatest sages, and goes on every hand far beyond it, and of Prevision which could see in the planetary nebulæ the vast and complex intelligence

[b] "What we call Physical Institutes, or Laws, are nothing else than Fact-registers of His (God's) great will in action."—"Faith: the Life-root of Science, Philosophy, Ethics, and Religion," p. 36.

of the world at this hour. This is a far higher revelation of the Mind of the Creative Power than has ever been otherwise afforded us; the vast geologic ages supply us with a parallax to determine the dimensions of His being; and His glory, wisdom, and majesty, as thus made evident, form a conception greater than physical nature has up to this time presented.

In passing, it is worthy of notice that the unity of principle here ascribed to the Intelligent First Cause is precisely the same unity of principle which is ascribed to Him by Revelation. Large parts of the structure of St. Paul's greatest writings are only arguments designed to shew that God has had but one mode of acting in all dispensations; and the unity of His operations, like the unity of His nature, runs as a deep structural element through the whole of His word. Science and Revelation thus exactly agree in declaring that the God revealed by both has only one path along which He moves.

3. Many, if not all, of the broad features of the Evolution hypothesis are interpretable as nothing more than the intellectual aspect of moral characteristics.

Its general mark—that which applies throughout—is obviously to allow no waste of Time, Space or Power. Every second of Time, every inch of Space, every iota of Power, is rigidly utilized. The times are such that none of our intellects can grasp them;—shewing the vastness of the Design, and the large limits intended for it,—yet every second of that time the Power was busily employed, and over the area of the whole universe was elaborating and building up the conception. This combination of vastness with minuteness, of majesty with economy, of unlimited stores with a resolution to employ every fraction to the best account, seems to me to be eminently worthy of God, and to be so remarkable and unique as to evidence the whole to be His handiwork. His creative energy does not leap from point to point, as on any other than the Evolution hypothesis it must be held to do; advancing from one point to another it does work by the way; every organism in which life dwells is utilized, and made

to increase the sum total of final being; there is not one purposeless stroke in the whole record of creative skill.

It is open to question whether it may not be shewn that the Creator was fixed to Evolution by moral considerations alone, and that no other way could be followed by a God of Righteousness. For it is the essence of Evolution that no step is lost, that one leads straight on to another. Suppose now this principle had not been followed. Suppose the creative energy worked in one place, and then, leaving off that work, went to another, doing nothing by the way. Obviously that would be a wasteful arrangement, and—made by One who had supreme Power—would imply moral defect. No wise manufacturer would so act if he could avoid it. The utilization of all waste product is recognized as one of the requirements of common morality. Assuming then that the conscience in noble men is some faint shadow of the sense of right in God, may we not infer that He must have required His Power to work in that orderly and persistent fashion, leaving no breaks or gaps in the work, which we, as we scrutinize the mode adopted, call the Principle of Evolution?

4. This economy of Power is specially evident in the mode resorted to for the purpose of calling up Moral Life. We have already seen (Chapter xiv.) reasons for believing that the Conscience and Moral Faculties are the mark at which the entire Creation aims, and hence the path from the lowest forms of life up to these qualities is the broad highway of the universe. This therefore ought to mark out the direction which the Creative Power is found from this point to follow; and we shall I think find, as we proceed, that there are many reasons for holding that it does move along this straight line. The chief laws of Astronomy and Geology,—the laws of Natural Selection, and Survival of the Fittest,—the whole of the Science of Biology,—the union in one law of the three *maxima* of Life, Pleasure and Moral Goodness,—may be all distinctly perceived to be mere stages and portions of this broad highway, and hence to fit in most logically with the hypothesis that makes

Moral Goodness the mark ever kept in view. To take the last first;—The union in one law of the three extremes, the largest development of Life, the largest measure of Pleasure, and the broadest and most massive Righteousness.

Obviously a Power that was aiming at a large Righteousness must first provide a large sphere within which that Righteousness could exist; and nothing but Life—and a large and highly developed Life—could provide such a sphere. But such a Life, we have seen reason to conclude, must have small beginnings. For those small beginnings are the first steps of the Creative Power, which, if they resulted in nothing—if no work was effected by them—would seem wasteful. Consequently we are shut up to the conclusion that the Power must begin with the little and the simple, the homogeneous and unstructural; and slowly mount up, by the combination and co-ordination of these, into the great and the complex, the heterogeneous and the highly developed. This truth, which we thus reach *à priori*, is manifestly one of the structural doctrines of Evolution, as laid down by Mr. Spencer. The sphere in which moral qualities might play being thus provided, it is clear that some means must be brought into use for making these moral qualities structural in organisms. Now it is open to question whether any other plan than that employed in Evolution could have been adopted. For if, as many hold, Freedom to go right or wrong is of the essence of Morality[c],—if a creature that is a mere *automaton*, although it continues in the right path, is still only a righteous machine, fabricating a material in which no righteousness of its own can be found,—then, clearly, no other course was open than to give to each organism the power of turning to the right or the wrong, and to rule it, and induce it to go right by some

[c] "The giving a simple, earnest warning, joined with dread penalty, would be the best and only restrictions which purely moral rule could allow."—"The Supernatural in Nature," p. 313. So also Kant:—"We have now reduced the Idea of Morality to that of Freedom of Will."—"Metaphysic of Ethics," Calderwood's Edit., p. 59.

plan other than compulsion. Now to link pleasure to right action, and pain to wrong action, and to make all pleasure increase life, and all pain diminish life, was,—if the phrase be allowable,—a master-stroke of policy, was exactly such a mode of conduct as, if evidenced by a man, would drive us to hold him possessed of the highest genius. Considering the scale on which the whole is planned and carried out, we have here evidence of Wisdom, Power, Gentleness, Pity, Delight in lofty Life, Rectitude, Justice, Patience, Benevolence and Love, which rise immensely above anything ever seen in the universe of human contrivance, which are as much higher than the greatest Designs of man as the heavens are above the earth. Mr. Spencer has been furiously, but to my mind very unwisely, attacked on account of the alleged Epicureanism of this part of his system. Such attacks I think only serve to shew how much wiser and more tender is the God of the universe than are many of His servants. How, it might well be asked, could a wise and holy God act in any other way? Could He link the *maximum* of pleasure to the *minimum* of virtue? Would not this amount to a distinct premium on vice?

If we consider how this law uniting the three *maxima* works we shall, I think, find much additional proof that it has been designed by the highest Wisdom and Love. Let us consider its working.

An organism is existing, and it has been so made as to be sensitive to pleasure and pain,—to desire the one and recoil from the other. Desiring pleasure, it moves in those paths where it obtains such pleasure. Thus it secures its own good. But a Higher Power is controlling it; as the creature subserves its own ends, it also subserves the ends of this Power; and, whilst moving along the paths of pleasure, it is also moving along the paths of goodness. At the same time it is, by this fact, increasing its own volume of life, increasing therefore its pleasure, increasing in development, increasing in goodness. The tidal wave in its nervous structure, generated by such conduct, is steadily being deepened and broadened; and the life it hands on

to its descendant has within it more forces which make for the right. As stage after stage of organisms is evolved, along with ever growing life and complexity, along with ever increasing capacity for pleasure, there is also an ever deepening force tending to the right. Each generation of creatures finds it easier to go right and harder to go wrong. This one law—the union of these *maxima*,—as Mr. Spencer shews, stretches right on, from the movements of the ascidians up to and including Man, with all the development of the races of man. Out of it has come, or must come, a morality as high and pure and refined as that inculcated in the Sermon on the Mount. What then does the whole law amount to? Is it not manifestly, from beginning to end, the steady thrust of a Righteous Will,—the gentle yet resistless pressure of a Being of Supreme Wisdom, Power, and Love, to mould His whole creation into the shape He has chosen it should wear?

We before saw, when examining Mr. Spencer's theory of Conscience and the Moral Faculties, the remarkable paradox that that conduct is morally best, and therefore most conducive to pleasure and life, which is regulated by a regard to the most remote good, although in the intellectual realm the exact reverse of this principle obtains. When then Life mounts up to the stage where moral considerations can come into play, it seems clear that the Power who designed it made the lines leading to increase of pleasure and life to point in the direction of a more distant good: He fixed the eye of the creature on a more remote object, and urged it, by a much higher reward, to struggle towards this object. Is it not clear then that He, by this means, led it out to a much larger and richer life? By the simple contrivance of directing its eye to a more distant point He increased vastly its habitual range of vision, and trained it to a greater patience, to a higher intensity, to a nobler intelligence, to loftier aspirations, to magnanimity, to justice, to virtue, to self-control, to purity, in a word to the highest moral ranges. Using Epicureanism as His main principle of action, never departing from it, but gradually refining the pleasure offered,

He thus leads creatures up from the lowest pleasures of sense to the highest joys of which saints and angels are capable.

5. Natural Selection and Survival of the Fittest. These may almost be regarded as the outcome of the law of the union of the three *maxima*, to which we have just been referring. If to that law we add a provision that Life shall be more prolific than that which sustains it,—that the supply of life shall be greater than the demand,—there must, it is clear, be generated a competition more or less keen, the effect of which will be to weed out all the weaker and poorer races, and to supplant them by the stronger and nobler types. Now we have seen that those races are weaker and poorer which have most constantly transgressed the law of right. By such transgressions they incurred pains, which diminished the volume of life, and made them less able to contend. In strict justice then, they deserve to die before others; they would be selfish, and would not subserve the great purpose of their being. Conversely those races are strongest and richest in life which have most constantly observed the law of right. A just Ruler, therefore, has no choice but to give them the preference. They ought to be awarded more; for they deserve more. This law may therefore be styled the Criminal Law of the universe: it is the means by which the decisions of Absolute Equity are carried out, by which the arm of Righteousness bears heavily down upon all who will not observe the law of love, made to secure the happiness of all. In this view, the whole universe of Life becomes a Theocracy; every bird that kills a worm is heaven's minister,—an executioner armed with power and authority to slay; and the whole of the dread machinery of Death is wielded by the hand of Him who gave the Life.

No doubt this law is directly in the teeth of those who think that Love is synonymous with easiness and good nature. It is, and it is meant to be, the firm and even stern assertion of inflexible Right—the upholder of moral principle, the vertebral column which gives stability to the

moral organization. It shews that heaven did not intend to permit organisms to be a collection of Lotos-eaters; it would have no purposeless life within its territory; every one was expected and would be required to perform a certain amount of work; and, failing the performance of such work, the penalty would soon be enforced. It was calculated to produce a high moral tone; to assert and enforce a just yet kindly discipline; and, by this means, to speed each organism on the task of improvement. No laggards can be tolerated, was its meaning; all are under training; all are required to exert themselves to the uttermost; all must contribute, as much as they can, to the life, the joy, the goodness of the universe. Intrinsically just and righteous as is this law, it is also a proof of the largest and noblest Love. For it was telling each creature that it could worthily have honour only when honour had been fairly won,—itself must do its own ennobling;—and was thus a placing of it on a higher plane of being. It was counted worthy to compete in the contest which had the whole universe for its arena. And, by thus urging on each creature to the highest possible development, which development increased its joy, there was manifestly given a loving incentive to press forward to a large life and a large joy which lay but a little in advance. Thus was exercised a control essentially of the moral order. Richer joys, but somewhat more remote, were pressed upon the organism in preference to poorer joys of a proximate nature.

No doubt within this principle lay another and deeper one, which was the end God had in view. That was to embody His own energy in great and highly developed lives; and thus to provide a sphere for the manifestation of Righteousness. To attain this end each organism was encouraged to develop its individuality to the highest possible extent; and whilst it, by this means, secured its maximum of joy, God secured from it the maximum of life.

All wise and noble men act on the same rule. They know that Natural Selection and the Survival of the Fittest form the most healthy and bracing discipline by

which men can be trained. A good mother does not tell her son to choose the smooth and easy path in life,—she rather bids him go forth and do his duty,—act well life's part, be it long or short,—fight its battles, and breast its dangers, and play in all things the man and the hero. That which we say to those dearest to us, heaven says to us all; and it could not adopt any lower tone.

6. The chief Astronomical and Geological laws display, at least in many instances, the like combination of Wisdom and Goodness.

They evidence a nice gradation of the work to be done with the power to do it. When planets are to be fashioned and compacted, the forces employed are enormous; and then the rapid changes are of the nature of catastrophes, so vast is the scale on which they take place. Assuming the earth to be a hollow sphere, whose periphery has crumpled up in the process of contraction consequent on cooling, we have here great and terrific convulsions, which were however, in all probability, necessary in order to provide a solid, unyielding structure. Out of the variety of surface thus produced, we have, manifestly, a vast number of geological results; which, again, provide for calmer and gentler operations than the events which preceded them. When the mountains are set up, and the clouds gather round them to be precipitated in rain and dew, we have clearly the formation of river valleys, and the slow preparation of rich alluvial soil. That is to say, Nature is beginning to wear a calmer and more benign aspect; her mighty machinery has been used to give roughly the shape desired; but as the designed ideal is more nearly reached, the tools used are finer, the blows given are gentler; the surface is delicately chased as if for a final polish, and long after hard material agents have ceased to be employed, it is still subjected to the operation of rains and winds, frost and electricity, and still on to delicate processes too refined for Science to follow. Now all this certainly wears a teleological look: it seems as if the Power in nature were ever preparing for higher and more delicate operations. Taking Life, as defined by Mr. Spen-

cer, as the adjustment of organization to environment, does it not look as if the Power fashioning the universe were steadily shaping the environment by more delicate adjustments, as knowing that the organizations amidst that environment would yield to the subtle influence, and become more delicately fashioned?

This was exactly what might have been anticipated from a Power intent on securing moral qualities. Those moral qualities must rest on an unyielding physical foundation; and, to secure this, hard blows must be given, and severe pressure employed; but in proportion as the structure grew into shape, gentler processes would suffice: out of these, higher and more refined developments might come, until, at length, should arise beings who were loyal to the faintest whisper of Right, who could yield to the pressure of the inspiring Spirit of God. When we shew the Design manifest in the "Principles of Biology," we shall I think find additional reason in support of this argument.

7. In this light, it seems to me we may be able to make out, somewhat, the moral use of the huge Saurians, and other animals of the Oolite.

It is a broad and even universal generalization that whilst the entire kingdom of the lowest form of life,—the vegetable,—can exist only on minerals, and can turn these minerals into nutriment, the entire animal kingdom can be supported only by vegetable life; and, if supplied only with minerals, must inevitably die. Wherefore it seems clear that in proportion as any atom is further removed from its inorganic state is it adapted to nourish a more developed form of life. The same principle holds good more clearly in the Carnivora. They cannot exist even upon vegetables, but require as nourishment those elements, — originally inorganic, and then vegetable, — which have been changed into animal by incorporation into the body of some creature on which they feed. We can interpret this necessity, it seems to me, only by saying that each atom became more highly differentiated by the processes through which it passed; and that, in this

way, it became fitted to sustain a more complex life. Higher organizations must have much of their work done for them;—the Creative Design is that they shall be the master-builders;—and it is therefore necessary that lower forms of life shall wait upon them, and get the material ready for their use.

If then this be a generalization which applies to everything that goes to fashion the higher organisms,—as it certainly seems to be,—then, it must follow, that a great many of those elements which are the necessary physical basis of man's moral character have been roughly fashioned, for this purpose, in the organisms of inferior creatures. The carbon which gives him stability, the nitrogen which contributes force, the phosphorus which nourishes his brain, the iron which adds power to his will, cannot, in their inorganic state, enable him to exist; and it is only after they have been cunningly prepared in nature's great laboratory that they are fit for his use. But they are the basis of his life, which is the basis of his moral character. Similarly then, is it not probable, that all the physical elements needed for that character have been differentiated and prepared in various organizations? One has contributed to the atom that nourishes him one property; and another, another property.

Now a great and rich nature,—a man of the largest and finest mould, an Augustin, a Luther, a St. Paul, a Milton, — contains, within the compass of his being, a whole host of mutually conflicting qualities. He has within him much of the nature of the higher Carnivora; and he will have the greater and more terrible forces just in proportion to the grandeur and scope of his being[d]. A lion is lying dormant, ready to spring out in defence of the right. A lofty character must have this largeness and variety of qualities;—there must be in him strong powers, strongly controlled;—and it is only as he possesses these that he is suited to brave those moments

[d] "There is a magazine of moral thunder and lightning in men of high moral genius."—Professor Blackie, "Contemporary Review" (1883), p. 823.

of danger when the heroism of righteousness must be displayed. Whence then came that fearless intrepidity in all the greatest of our race which has led them, on occasion, to confront with unblenching resolution a hostile world,—which has shewn us, not a few times, the sublime moral spectacle of one man setting his will against the world, and bearing down that world, conquered, before him. Obviously that magnificent moral courage must have an unyielding physical base. May not these physical elements then have been elaborated somewhat in inferior organizations,—may not the lion have been made to contribute to such a one's strength and daring, and all terrible and deadly creatures been subordinated to minister to his power, and increase the might of his will? We may not know what is the physical process by which this was accomplished. The terrible Machairodus and the huge Saurians may have been the needed progenitors of the higher Carnivora; and the intellectual aspect alone of these Carnivora may have roused the will of man to commanding strength. Or a fierce contest with them, by some great hunter, may have called up, in a far-off ancestor, the rudiments of that nerve and daring which the greatest men always display. The keen struggle for life may easily, in this way, have helped to fashion men in whose natures, amidst many other and higher qualities, there reside also those elements of strength without which a nature of commanding goodness cannot be formed. In this way, it seems to me, all the cruel and terrible aspects of life are fairly reconcileable with a sublime moral purpose running through all:—

> "Dragons of the prime,
> That tare each other in their slime[*],"

may have been the ministers of Eternal Providence for elaborating the germs of qualities which should, in due season, glorify reformer and saint and hero: the strife of fierce hunters may have been designed to lead up to the men who should strive for the truth: the cunning of a

[*] In Memoriam.

creature in eluding its enemies may have been one of the early steps of that which, duly elaborated, we reverence as lordly Science; and the whole of the great principles of Natural Selection, and Survival of the Fittest, only the foundation of an edifice on whose higher ranges will be found the men who loved not their lives unto the death, the noble army of martyrs, the uncompromising opponents of error, the poets, the prophets, the apostles, in a word the whole array of moral magnates who most of all ennoble and enrich our race. And when we learn that, by the unification of the *maxima* of life, joy and goodness, all strength in our universe is being steadily taken up and used along the lines of right,—to carry out the decrees of goodness,—is it not clear that all the terrible things in nature are sublimely controlled, and that Righteousness, Love, and Gentleness, ride supreme above all, and are making all minister to the happiness and greatness of the race[f].

8. "Principles of Biology" makes evident the teleological element just as distinctly. We saw that Mr. Spencer claims to have shewn grave reasons for holding that all Life has been developed without a break from the "Persistence of Force." We saw that the "Persistence of Force" was but the statement of the moral principle that no power must be wasted,—or allowed to pass from one point to another without doing work in between. Consequently all that can be shewn to result from the "Persistence of Force" has a distinctly moral character. With this feature stamped upon its commencement it is not likely ever to lose it; and, as we examine each part, we shall, I think, find fresh reasons for holding it to bear the mark of a high moral aim throughout. Let us then travel over the main generalizations of the "Principles of Biology."

The statement that all organic matter is made up, chiefly, out of four elements, three of which are gaseous, (one of them the most unstable element known,) and the

[f] "Life is not a continual struggle with brute, irresistible force, but a process whose work is the survival of the best."—"The Supernatural in Nature," p. 197.

fourth the most stable substance known, wears a distinctly teleological look. Obviously such a compound must contain the elements of the greatest stability, in union with those which shut up the largest amount of unused force; and, as such, it is admirably adapted to supply at once that firm foundation, and that high mobility, which are both needed for life. Moreover, the matter of which organisms are formed is chiefly of the colloid or jelly-like type; which, again, contains the largest amount of unused force, and is capable of being readily influenced by powers such as light, heat, pressure, &c. All this then only amounts to the statement that the Creative Power acted with wisdom; and chose those elements, and that form of them, which were best adapted to the end in view. He intended Life to be very delicate and subtle; He meant to carry it on to the refinements of conscience; and therefore He locked up, along with very solid material, a large amount of unstable matter, in order that the needed force and delicacy might be combined.

The arrangement that the organization should vary according to its environment, seems admirably adapted to secure a moral end. For we have seen reason to conclude that to call up moral principle each creature must have power to diverge from the right and normal path. It must be controlled by pleasures and pains. This being so, each creature must be permitted, within limits, to shape itself. *Its* make can be determined only indirectly. But over the inorganic realm,—the environment,—the Creative Power has absolute control. No moral law dictates tenderness in cleaving iron and stone. This then may have any desired impress put upon it. That is to say, the environment—*the mould—may be fashioned absolutely after the Creator's ideal;* and if it be then arranged that the mould shall exert a quiet, steady pressure upon the soft colloid of the creature, manifestly this will grow into the shape desired, but will still retain its proper individuality, and power to deviate from the path. The adoption of this plan looks very like education and training:—the supreme Will appoints the curriculum, and thus ensures that the

great bulk of Life shall be moulded into the shape desired.

The arrangement that there shall be a correspondence between degree of growth and complexity of structure, has a distinctly moral look. For it is only the enforcement of the Bible principle,—"Unto whomsoever much is given, of him shall be much required[g]." All greatness shall go along just and normal lines; all large development shall be true and orderly development; all large growth shall be growth in structure; great life shall be forbidden to creep, and be forced to soar; in proportion as there is more force employed there shall be an approach to the realm of morality. The Creative energy shall speed straight onward to its final end; and no organism, whether vegetable or animal, shall be allowed to draw a large supply of life, unless it moves in the direct line for the region of truth and joy and right. So again, the provision that large organisms shall have a large beginning;—that highly-structured organisms shall be highly structured in the embryo state;—and generally, that the rank of a creature in creation shall determine the amount of care and force and life given it to commence with,—looks very like a provision intended to secure large and highly-developed life. It is one of the chief provisions of modern civilization; one of the structural principles of a happy home. A university, which is to be the centre of a nation's intellectual life,—i.e. most highly structured and of chief importance,—may justly have given to it the best energies of the state, and in proportion as a people is wise, and aiming to produce mental and moral greatness, will this be done. But that is just the mode which marks the Power manifest in creation. The self-restraint and economy of force—the holding back until each creature had attained its fullest growth, and was at the maximum of its power,—(which are essential for large organisms,) are again very distinctly moral provisions.

The provision that all development shall be from the indefinite to the definite is also in the moral direction.

[g] Luke xii. 48.

For it is a requirement that all colloids shall progress towards the crystalloid form;—all jelly-fishes shall develop a vertebra; the true character of the organism shall shew itself; each creature shall be more and more settled in the path and habits it has chosen; each man, though plastic for a time, shall be required to make his choice, and to be fixed in the shape he has determined to have. Good and evil shall segregate themselves.

The requirement that Function shall determine shape has been already considered, when shewing that the immaterial moulds the material,—that Mind shapes Matter. Obviously this has a teleological aspect. The ruling Mind determines the direction the Matter shall take, which direction fixes the function it is to perform. A creature which chooses to be a vessel unto honour, or a vessel unto dishonour, is shaped accordingly.

What is called the physiological division of labour,—i.e., the provision that different functions shall be performed by different organs—is clearly an arrangement calculated to lead to the largest and most highly-structured life. It is always applied most extensively and constantly in the most highly-organized communities.

The principle by which Mr. Spencer explains the *modus operandi* of the Repair of organisms, consequent on the expenditure of their power in work, is also susceptible of a teleological explanation. That principle is that compound groups of units can mould elements into like units, can impress upon them their own shape, and inform them with their own life. Clearly this is an arrangement which makes goodness able to act upon badness. And as we saw the universe is so arranged that its strength shall ultimately run into goodness, the power given to goodness to act upon badness, (and if it be the stronger of the two to assimilate it to itself,) means just this, that goodness shall conquer and annihilate badness.

The laws regulating Genesis, have a moral and upward look. In the lower organisms, creatures can give birth to young without the intervention of any second creature; but as organisms rise in the scale of life this ceases, and

it is ordained that, for the production of the most highly-endowed organism, two similarly-endowed shall co-operate. This is nothing more than the physiological division of labour. Each shall contribute what it can, so that the life resulting shall start with the largest capital of life that the two together can fashion. The principle by which this result is secured also admits of a moral interpretation. When the life of the creature is super-abundant, it does not need the intervention of a second creature; but when its life is all needed to meet the demands upon it,—in Mr. Spencer's words when it is "nearing the balance of function," such an intervention is necessary. Which is the same as saying that as organizations attain their majority they are placed under a stricter moral law. Organisms low in the scale of being may gambol and play, and have a fund of untaxed life; but as creatures rise in that scale it is expected that all their powers shall be applied to high uses; and that no overplus of life shall remain. Evidently this is a law sublime in its austerity. It is the principle laid down by the Lord Jesus Christ as the rule of His own conduct:—"It becometh us to fulfil all righteousness[h]." The higher the nature the more strictly must it observe the law of right.

Much evidence is adduced shewing that flowers, seeds, fruit, as well as the young of all organisms, are all owing to one and the same cause,—and that a most unlikely cause—viz., failing nutrition. To some it seems incredible that these should arise from a want of life, and some urge that they rather indicate an excess of life. But accepting Mr. Spencer's facts, and,—to a large extent,—his generalization, we shall, I think, see that both are susceptible of explanation by means of a larger generalization; and that this will remove all the difficulty felt by many, and disclose a high moral design running throughout. To this point we shall recur at the close of this chapter.

In dealing with the Morphology of both plants and animals it is shewn that one universal law will account

[h] Matt. iii. 15.

for the almost infinite variety of shapes they present. It is a formula which expresses a common character in a tree and a cow, a flower and a centipede. This one vast generalization is that, assuming plants and animals alike to have started from a spherical form, (which spherical form would result from the law of gravitation,) whenever an organism has its upper and lower surroundings alike, it remains the same at the top as at the bottom; when these are unlike, it changes in proportion to their unlikeness; when the creature moves either backwards or forwards, or through much the same medium, there is little difference in front and back, so far as *outward shape* is concerned, whilst yet there is a vast difference in *physiological conformation;* when again the organism is exposed to the same forces on each side, the sides remain alike, when the forces differ, the sides also differ. Probably only an intellect of great grasp, combining the qualities of man of science and philosopher, can appreciate the deep significance of this generalization. It is easy to ridicule it,—and this weapon has been employed by many,—but ridicule is no answer to what honestly claims to be a scientific truth. The facts brought forward by Mr. Spencer in its support seem to me, when dispassionately weighed, *primâ facie* evidence of its correctness. If we accept it, it is no doubt startling in the extreme to learn that the shape of every natural object can be accounted for by the operation of one law. That the "Persistence of Force" should produce the multiplied variety of inorganic forms, and then should pass on to produce the yet greater variety of every species of organic life, is one of those vast scientific statements which almost provoke incredulity. Possibly this is on account of its novelty, and it may not be, in itself, any more remarkable than the "Correlation of the Physical Forces." But, vast and startling as it is, it can be explained as a mere common-place of moral action. Evidently it is resolvable into the principle that no power shall be wasted, —that where there are sufficient forces in existence to shape an organism no other forces shall be employed.

The Intelligent First Cause does not go over the ground twice, is really all that the generalization contains.

The same principle, viz.,—that difference of environment leads to difference of organization,—is shewn to account for almost every shape and function of physiological development. It need hardly be remarked that it is therefore to be explained as a result of the same moral principle.

It is specially noted by Mr. Spencer, as one of the deepest and most structural truths of Biology, that beauty is evermore connected with the sexual relation. Beauty is always employed to attract. Beauty is meant to excite a pleasurable feeling, to create desire, to lead on to love. Employing it for this purpose is evidently to act on the same principle as that we found in government by pleasures and pains; but here it is more refined, and as if calculated to lead to higher things. Beauty is a pleasure which only a refined nature can appreciate. It is in a region above the pleasures of sense. It belongs to the realm of art, of sense growing into soul. It supplies then the means of attacking the soul, of casting a glamour and fascination over it, which, through the avenues of feeling, shall win over the desires and the will. Now if this be regarded as design intended only to subserve the procreation of the species, it seems to me to disclose a high moral purpose lying in the very heart of the strongest passion we can know. Not for the sties of sense is man designed, but for the higher joys of the soul, to be regaled with all fair and beautiful things, and to be led on by an irresistible desire to a path of light, refinement, purity, where all beautiful things are found. His home is meant to be a place where all gentle and kindly influences centre, and the law which is to rule it is to be the law of love. Thus much we might, I think, fairly infer from the principle alone. But taking it in connection with other matters it seems most plainly along the lines of high moral purpose. Is it not the Intelligent First Cause,—the Supreme Origin and Fount of Beauty,—revealing to His creatures, through the veil of other organ-

isms, the beauty that is in Himself; to the intent that they should desire it, and so should be led onward, from stage to stage, until, by slow degrees, that beauty writes itself upon them, and they stand clothed in His moral nature? This casts a wonderful light upon the sexual relation.

> "God gives us love. Something to love
> He lends us; but when love is grown
> To ripeness, that on which it throve
> Falls off, and love is left alone[j]."

There is also a principle that as an organization becomes differentiated and specialised, it grows more completely into a physiological whole; its structure is more constant; it is enabled to maintain life for a greater period, under more trying vicissitudes; and to exert a greater influence over the lives of its posterity. Evidently this is nothing more than the "Conservation of Moral Force[k]." When the Power working in the universe has won a clear advance in the development of life, measures are taken to secure that advance; a high and involved speciality is preserved; nature, aiming to secure a physical and moral aristocracy, gives a higher degree of energy to those organisms which approach this type. The mould in which one noble nature has been cast shall be used to give shape to many more like it, and all that is precious shall be preserved as long as possible.

Mr. Spencer gives a remarkable instance where even the *vis medicatrix naturæ* is fairly referrible to a mechanical principle. The disease called rickets, he says, is caused by bending of the leg bones consequent upon

[j] Tennyson. To J. S.

[k] The title of a pamphlet of singular depth, beauty, and power, by Professor Griffith, in which he shews that the "Conservation of Energy" obtains strictly in the moral realm. It is to be supplemented, I hope before long, by a work on the "Correlation of the Moral Forces," which is intended to shew that the great religious verities, such, e.g., as the Atonement, are only the expression of demonstrable scientific truth. This will, it seems to me, give to the Science of Ethics the coping-stone it has always lacked: it will be another proof that man's Reason coincides with Revelation; and will thus be a noble justification of the ways of God to men.

poverty of blood. If now the blood be made richer by the supply of better nutriment, that very bending is made the means of effecting a cure. For, as the bones bend, the concave side is squeezed, which consequently squeezes the capillary blood-vessels in that place, and forces them to discharge there their juices. These juices build up more bone there. The oftener then the leg is bent, the greater is the supply of nutriment sent to that place, and the more frequent and effective the healing force. When the weakest part of the bone is thus strengthened, the strain of course ceases at that place, and falls upon another. By the like process this place is made strong. At length the bone is strong in every part, and then it bends no more, and the excess of nutrition carried to that place is made to cease. Now admitting all this it is clearly susceptible of a teleological explanation. Could any better plan be devised than to use the weakness caused by disease to bring about a flow of juices to that place which should cure that disease? And as the mechanical principle which causes it is itself a result of the "Persistence of Force," which, as we have many times seen, is explicable only as a law devised by Intelligence, it follows, of course, that every result of that law, has been intended by the same Intelligence; and hence this *vis medicatrix naturæ* is just as much the result of a purpose to heal as when any human physician employs remedies to the same intent.

We have now travelled over the entire area of "Principles of Biology," taking all its main principles as stated by Mr. Spencer,—none have been consciously omitted,—and we have seen that all are distinctly open to a teleological explanation, whilst several of them are of a nature almost to compel that explanation. To suppose a high, moral aim running throughout, is to give a more scientific and exhaustive account of all the facts and laws that Biology furnishes. And I have not been able to find one adverse fact. If any such exists I shall be obliged to any one who will point it out.

Even the existence of parasites,—such an insuperable

bar in the way of accepting the commonly-received theory of Creative Design,—is by this theory satisfactorily explained.

Seeing that parasites can continue to exist only by the intervention of another animal, and that if this animal dies they also die through the loss of their habitat;—this looks as if they were, so to speak, the scraps and fag-ends of organic life,—creatures with too little energy to continue living, unless they can find some more generous organism which will help them,—grudgingly it must be admitted,—to maintain their existence[1]. If this theory be true they are living a weakened, degenerate life. Now we have seen what is the only real cause of weakness and degeneracy. That cause is transgression of law, and the squandering away of power. Are then these parasites the spendthrifts of the universe, and are they allowed to continue as a race of Helots to act as a warning and beacon to wiser organisms, and on condition of their performing the most menial offices? Are they the cowardly relatives of some bolder race, which has struck out a course for itself, and, after roughing it for a while, has found surroundings favourable, and now maintains an independent and honourable existence; whilst these others, sensuous and slothful, prefer to depend on the charity of strangers? This theory would justify the feelings of abhorrence and contempt felt for them; and the war of extermination perpetually carried on against them. Even this aspect of justice must not be overlooked, for the Power in the universe holds the balances fairly for the meanest organism. All creatures are dealt with "according to their works." As moreover, parasites are generally connected with impurity,—physical or moral,—our contempt and abhorrence of them is obviously calculated to lead to abhorrence of that way of life which is associated with them. Are they not then symbolic of nature's

[1] Mr. Spencer appears to hold this view. In "Principles of Sociology" he says, "Among parasitic creatures we have almost innumerable kinds which are degraded modifications of higher kinds."—"Principles of Sociology," 2nd Edit., p. 107.

scorn and contempt for all who will not walk in the ways designed by Infinite Love? Those who will not obey her gentle leadings must either be exterminated outright, or else become the vagabonds and scavengers of the universe[m].

It may, I think, be now concluded that the whole of "Principles of Biology" distinctly favours a teleological view of the Evolution hypothesis. No important point has been passed over, nothing has been discovered inconsistent with it, and several principles have been shewn to display a greater meaning and depth if this theory be accepted. Let us now proceed to the few remaining parts of that hypothesis.

9. If we enquire why Man has mastery over the inferior animals it must, I think, be allowed that such mastery is possessed only in virtue of his higher Intelligence. Now we have agreed that all laws in the universe, since they can be read only by Intelligence, must have been fashioned also by Intelligence. Whatever results from them must have been designed. Since therefore man has mastery of the animals by means of his Intelligence,—and since this result must have been designed,—we are driven to the conclusion that Mind was intended to be the ruling power of physical force,—was meant to utilize that force, and employ it for the carrying out of its own designs. And if the lower animals were thus designed to be subject to man's Mind much more was inorganic nature. Mind was designed to conquer it, to wrest from it its secrets, to yoke it to its chariot, to make it its vassal and slave. This brings in *en bloc*, as the result of Design, all that has been necessary to attain these ends. Fairly contained in the sweep of the law which has designed the Intelligence of man to master, and turn to his own use, the entire realm of nature, are the rise, growth, and maturity of philosophy, science, agriculture, commerce;—the development

[m] "Repulsive things in endless variety of disgusting existence are symbols of those low and vile among men who defile the very course of nature; whose life seems 'a mocking travesty wrought in the dark by an impish finger.'"—"The Supernatural in Nature," p. 413.

and organization of communities in which these could flourish; the conquerors, kings and statesmen who have fashioned the main polities of the world; the jurists who have laid down the lines of enduring commonwealths; the onward march of events which has constituted human progress; in fine that supreme superintending and directive force which grasps all human events, and makes all move forward to the attainment of its own ideal,—which we call Eternal Providence. As we before concluded that the Power manifest in the universe must have seen, in the first movements of the planetary nebulæ, the intelligence of the world at this hour, so here we come to the allied proposition that all that intelligence has been designed, and that all human mind is simply one mode in which the Power manifest in the universe is realising its ideal.

10. But although Mind is designed to rule both Matter and physical life it is not intended to be supreme. A power is placed above it. The whole science of Sociology, the structure of the "Data of Ethics," the structure of the greatest poems and philosophies, and the structure of all enduring dynasties and empires, make plainly evident that deeper forces than mental,—viz., the moral,—are those from whence all enduring supremacy proceeds. The history of the great powers that have in turn moulded our human world is a history of the rise and development of moral qualities; and as leading nations have lost their early simplicity and purity they have become enervated and feeble,—unable to produce great and commanding men,—and have been forced to give place to hardier and purer types. High physical and intellectual development is, as Mr. Spencer has shewn, the accompaniment of well-regulated—i.e. of moral—conduct. But we have seen reason to conclude that the moral law is the deepest and most structural principle in all Life, and that the intellectual and physiological laws are only a part of its outcome. It was existing prior to these, and was that which gave them being. But by the observance of this law, intellectual and physical strength are secured. Obviously then it has been

arranged that a high morality shall bring with it intellectual and physical force; it has been commissioned to lead the van; and to it absolute supremacy has been accorded. And, as we have agreed that all laws are the result of Design, it follows that the Intelligent First Cause designed that Righteousness should steadily advance to the front; and finally take the throne.

We have now travelled, with more or less completeness, over the entire area covered by Evolution. We have examined all its leading principles and aspects; and have discovered that, whilst all are quite consistent with the hypothesis that they are the result of design, there are some which are more satisfactorily explained on that hypothesis, and some which seem to demand it. We have thus ten arguments which form, as it seems to me, a solid logical unity, and make, in their combination, one great argument for the teleological view; which I think utterly overwhelms in force, in breadth, in massiveness, in precision, in consistency, anything that has yet been advanced on the other side. The strength of these ten arguments can be but very feebly shewn by a recapitulation, but it is all that can here be attempted.

1. The Principle of Evolution is, whether regarded *à priori* or *à posteriori*, only known to us as a principle of Intelligence,—a principle which only a high Intelligence can read, and a much Higher Intelligence must have fashioned.

2. This Unity of principle is at once a proof of Wisdom, Power, Far-reaching Prevision.

3. Many,—if not all,—of the broad features of the Evolution hypothesis, as we discover it in the universe, are clearly explicable as the intellectual aspect of Moral characteristics.

4. The union in one law of the three *maxima* of Life, Pleasure, and Righteousness, is quite consistent with the teleological hypothesis; and almost necessitates it.

5. "Natural Selection" and "Survival of the Fittest" are clearly explicable as the Criminal Law of the universe; they have certainly resulted in enforcing a high morality;

and they seem as if they were expressly designed to enforce it.

6. The chief Astronomical and Geological Laws display a distinct progress in gentleness, fineness, delicacy, complexity; clearly pointing to the notion that Life, in ever higher degrees of development, was designed to be the outcome.

7. All the fierce, violent and destructive creatures in nature are, on this principle, satisfactorily accounted for, —shewn to be necessary and subordinated to great and worthy ends. Parasites, we saw, are similarly justified.

8. No less than fourteen of the main and structural Principles of Biology, as stated by Mr. Spencer, are shewn to be, in every single instance, susceptible of a teleological explanation, in several cases seem distinctly to demand it; and some point irresistibly to a high moral design.

9. Mind must have been designed to have the mastery over inorganic nature, and over the entire animal world; and hence the intelligence possessed by the world at this hour must have been included in the scope of that design.

10. Righteousness must have been designed to have dominion over Mind, and to wield chief authority in the world.

It was before stated, in this chapter, that the reason assigned by Mr. Spencer as the cause of flowers and fruit, and of the birth of fresh creatures, was one and the same, —and that a reason, on the face of it, most unlikely, viz.— defect of nutrition,—an inability on the part of the creature to carry on any further development. We may join with these pain and disease, and may contain all in the generalization that, when an organization has come to the maximum of development it can individually reach, as its life begins to wane, provision is made for it to hand on some of that life, so as to continue the great chain of being: in this process of transmitting life, it is, as it were, transfigured; the intrinsic glory of the plant shines out in flower and fruit; and in higher organisms the process of imparting life, and of the decaying of life, are attended by

disease, (and pain as its accompaniment,) but these also seem calculated to lead to a transfiguration of the nature, and to shew the intrinsic moral beauty of that which has hitherto been concealed.

This is a large generalization, and probably it would rather rivet the attention of a poet than of a philosopher, but it seems to me singularly striking and suggestive, and something like a parable of the universe. A plant is bidden to go on growing as long as it can, and during that time,—as it is doing worthy work,—no special beauty is asked of it. He who made it has long patience and can wait, but when it has attained its maximum, is growing weak, and is then bidden to sacrifice itself for the life of another, it is made to develop an efflorescence of glory such as up to that time it had given no hint of containing. Noble and stately life then, gathering power through long years, attaining its apotheosis by the sacrifice of self, is the supreme law of its being. Strange that its beauty should only be shewn by its pain! Strange that it should become most glorious in decay! Strange that its sweetest fruit should only grow out of its death! The same anomaly meets us when we consider our own lives. We are bidden to attain our maximum, and then hand on the life to others. With us too, in the supreme moment of self-sacrifice, there is the transfiguration of the nature. Motherhood stands revealed in its depth and tenderness in the pains of birth; by these only we gauge a mother's love; and perhaps the intensity needed to bear them comes out of that love. And with all great natures who enrich the life of the race,—all reformers and prophets who travail in birth-throes for the good of men,—the same truth holds good. It is through their weakness, their pain and suffering, that we learn the dimensions of their greatness. A noble life, sacrificed for others, shews its splendour in the fiery trial. Strength had never revealed its glory; only weakness could shew that. Must we not press on one step further? The strength of God had never seemed beautiful to us, but the weakness of God,—the Sufferer crowned with thorns, the scourging and the Death,—these

have revealed an infinity of glory that has won our hearts. What an exquisite parable—Flowers spring out of Death!

From first to last, then, the hypothesis of Evolution is quite consistent with the belief that it has been designed in order to bring about all its results, and many of its structural principles distinctly suggest such a design, and in some cases almost make it a necessity. From a philosophical point of view then the balance of argument seems overwhelming in favour of the teleological aspect.

CHAPTER IV.

THE BIAS OF AGNOSTICISM.

IT has now been made evident that the only proposition Mr. Spencer has proved to substantiate his assertion that the Power manifest in the universe is Unknown and Unknowable is that we cannot get on the outermost verge of Infinity, so as to see whether it is or is not consistent with Personality. The intellect which could unify these two conceptions, we saw, could reside only in the One Supreme Deity of the Universe. The assertion, therefore, that God is Unknowable means nothing more than the barren truism that man is less than God.

We have now examined some of the knowable elements which cover over the area that is bounded by the Unknowable line, and have discovered abounding evidence that the Power manifested in the universe is Intelligent, Omnipresent, Unlimited, Gentle, Vast in Design, Rejoicing in Life, Joy and Beauty, Just, Pitiful, Tender, Fatherly, Patient, high in Moral principle; the Designer of all Art, Science, Philosophy, Commerce, Statesmanship, Poetry, Music, Progress, Material Prosperity, with the large structured Commonwealths that these imply; pressing every organism on to a higher life; intent on securing blessings to all who live rightly, intent on gently exterminating all who live wrongly; making the whole universe subordinate to Intelligence, which in its turn is made subordinate to Righteousness; educating our race into a high moral nobility; and using pain and self-sacrifice as means whereby moral majesty is secured and made evident. This we have seen to be the honest aspect that the universe presents,—that is the look the Power manifested in it wears,—and we must surely assume that that Power displays its true features, and that, behind the veil of the visible, a Power answering to these characteristics really exists.

Can it then be asserted with one particle of truth or justice that this Power is Unknown and Unknowable? Can we assert nearly as much of the man Shakspere, as evidenced in his plays, as we can assert of the Power evidenced in the universe? To me the answer seems overwhelmingly in the negative, and I am hardly able to regard the main tenet of Agnosticism as better than a piece of infatuation, having no foundation whatever in a noble and far-reaching philosophy. The assertion of Nescience,—the assertion that we know nothing and can know nothing as to the character of the Power above us,—seems to me a statement which those who judge philosophically and dispassionately can only scorn.

Let us look at the two sides;—the evidence for the Unknowableness; the evidence against it.

The evidence for the Unknowableness of the Power, arises solely from the fact that we cannot tell whether an Infinite Being can be a Personality, and,—as this knowledge can be possessed only by an Infinite Being,—(which one Infinite necessarily excludes all other Infinites), the entire evidence resolves itself into this;—that man is not as great as God. Not being as great as God, of course he cannot fully know God; there are heights and depths in the Divine Mind which he cannot explore. This one statement then,—a necessary result of man's inferiority to God,—contains every tittle of evidence, which has yet been advanced, in favour of the assertion that God is Unknowable.

But if we look at the evidence against the assertion that He is Unknowable, we find it multiply upon us from every quarter of the universe; from the vast tract and complexity of Law; from every Science; from all human history; in one word from every thought which has dwelt in human brains; from every emotion which has pulsated in human breasts. Each one of these furnishes a separate argument proving that we can know and do know something about Him; and when all are united, and a powerful, philosophic intellect grasps the entire unity they present, so as to see what are the bold

and undeniable features thereof, surely it is nothing better than philosophic trifling to say that such a one cannot tell what are the main traits of His character.

Every one of the qualities which we have proved to be manifested in the universe, is consistent with the hypothesis that He is a Personality, and very many almost demand it. Thus He is Intelligent. Can Intelligence exist in any other than a Person? It is quite impossible for us to say that Intelligence denies Personality, and it is far more likely that Intelligence actually implies it.

From Intelligence alone then the balance of evidence is in favour of Personality. Again He is Gentle, Tender, Patient, Pitiful, Fatherly. Can these qualities dwell in an impersonal existence,—in a Power that is not "touched with the feeling of our infirmities?" Is it not passing strange that the universe displays a tenderness, a love and care, which no mother has ever shewn to her child, if the Power in the universe has no sense of sympathy,—is not a loving, personal God? How can these aspects of the universe be explained save on the supposition that a Personality fashioned the universe, a Personality much deeper, richer, sweeter, than anything human, with the sympathies purer, and more extended, and the whole Being reaching to higher ranges? Once more this Power is;—Rejoicing in Life, Joy and Beauty;—which looks as if all our fineness of nature were possessed, and something far beyond it. He is the Designer of Art, Science, Music, Poetry, Philosophy, Commerce, Statesmanship, &c., with the vast and varied interests they imply. All the great men—the Individualities and Personalities of the world—have been fashioned by Him; and as they become great their Individuality and Personality are more evident; as they grow greater then do men get farther away from His nature, and are those who stand on the summit of moral majesty the least like God? Does the maximum of moral likeness to Him go with the minimum of mental likeness? Let those believe this who can;—my intellect must reject it as a manifest absurdity. Yet once more;—the Power in the universe is Just, high in Moral principle, intent on securing

blessings to those who live rightly, intent on gently exterminating all who live wrongly, subordinating the whole universe to an Intelligent Righteousness, educating our race to high moral nobility, using pain and self-sacrifice as means of making moral majesty conspicuous. Now whilst all these qualities are manifestly consistent with Personality, is there one of them that can exist without Personality? They are all of the order, Moral. Can any impersonal existence be Moral? Surely any Moral existence needs of necessity all those elements which make up Personality. There must be Intelligence to decide between right and wrong. There must be a Moral Faculty to urge to the right. There must be a Living Will to choose and carry out that right. But these constitute the essence of Personality; any existence who has them must be deemed a Personal existence; however exalted this existence may be, its exaltation must go on along the lines of Personality; and the higher it reaches the more distinct and individual must that Personality be. Life is most specialised as it is most developed; and the Life out of which all the life in the universe has sprung must be the most highly individualized and personal life that all existence manifests.

Seeing then that a just and true philosophy yields no support to the dictum that God is Unknowable, we are driven to enquire whence comes this main Agnostic tenet, and in what way is it arrived at. It seems to me to come from an unphilosophical accretion on a true system,—to be a hasty and unfair inference, eagerly snatched at, accepted without satisfactory evidence, and displaying distinctly the Bias of Agnosticism. Let us examine what is this bias,—this tendency which warps the philosophical judgment.

It is the peculiar nature of all moral qualities that they inhere only in an intellectual material. They are subtle factors running along the lines of the intellectual, and charging this with an element which gives it a moral aspect. Hence, in a sense, they contribute nothing to the purely intellectual element; the logical completeness of

a sequence of events,—the aspect i.e. which that sequence presents to the intellect—remains, after the addition of the moral element, just what it was before that addition. Logic can completely interpret it without taking the moral aspect into account at all: its whole intellectual content can be exhausted, and nothing remain unexplained, without so much as once bringing the moral aspect into thought. As the matter is rather abstract, and is of great importance, let us take a concrete example.

Suppose we take that series of events which we call the murder of Duncan by Lady Macbeth and her husband. Now if science knew every law operative upon us, she could explain to the intellect, without one logical gap, everything that took place in this series, from the first dim imagination of the crime up to the moment of its completion. She might shew how that first image was formed in the brain; how the will operated to keep it there; how the ganglia and nerve-currents which were its physical correlatives, being often used, grew in size and massiveness; how a current was set up in this direction; how nerves, blood-vessels, muscles, were slowly subdued and made subordinate to this mastering passion; how the nerve-molecules urging to the crime grew stronger than the nerve-molecules, representing conscience, urging against it; how by this means the evil force was set up and enthroned; how this nervous current, having secured command of the will, directed all the physical energies and powers; how it sent on nervous waves which set the muscles of hands, eyes, ears, feet, in action; how all these were co-ordinated and kept in control by the powerful current generated in the brain; how the whole force of the nature was thus made ready to act, like an army concentrating its strength; how at length the senses learned that the hour had arrived; how the forces then were put in motion, the nerve current in the brain directed the muscles, the dagger was seized, and the deed done. Now we may, in this way, explain every intellectual step in the process; we may leave not one logical gap; we may exhaust the entire intellectual content. Science may

thus put before us all the series and sequences involved; may account for every process in terms of the intellect; may shew the force persisting, from one end to the other, just as exactly as it does persist in a chemical equation. Yet, *whilst the intellectual explanation is perfect, the moral element remains unnoticed.* Planting seeds in a garden, or giving food to a starving child, would be explained in just the same un-moral way; and, so far as the pure intellect is concerned, the benevolent action would display no more moral quality than the crime.

Similarly, the operation of every law in the scientific universe might be completely explained in terms of intellect alone. Every process which goes on, from the first movements of the nebulæ up to the last motion of the nerve-molecules of every organization existing at this hour, might be just as adequately explained. Science might be able to fill up every gap, to deduce every event rigorously from first principles, and to exhaust the entire intellectual content of all the phenomena. By this means all that has ever happened would be accounted for, and logic could proceed from the first step to the last. No doubt this is attributing to science a vastly greater knowledge and prescience than she at present possesses. But there seems no reason, in the nature of the case, why she should not one day possess this knowledge, and her foremost sons be able to decipher in the movements of the nebulæ, the entire totality of Law which has proceeded from them. Yet, as before, even if this were done, the moral element in that universe would by this complete intellectual explanation remain unnoticed. The crimes and barbarities and sins, the prayers and aspirations and self-sacrifices, remain on precisely the same level; the atrocities that defile, and the nobilities that glorify, are represented in the same neutral tint; and the entire moral complexion of the world does not come into review at all.

Mr. Spencer claims thus to have unified all knowledge. He claims to have deduced all that man manifests out of first principles. It is a large and daring claim, upon which it is not easy to adjudicate. But for the sake of argument

let us grant its justice. Let us allow that he has exhausted the entire intellectual content of the universe. Let us accept his Philosophy to the fullest extent that his most thorough-paced adherent can desire. None the less does it remain true that he has *never once noticed the moral aspect of things.* He has only shewn the *intellectual aspect of the moral faculties;* the currents of the molecules with their correlative mental states, which make up conscience; and the moral aspect of the grand array of laws he never touches at all.

In the "Data of Ethics," he only shews the intellectual generalization that the *maxima* of pleasure, life, and moral conduct, go hand in hand. He states this in precisely the same way as he states in "First Principles" that the precession of the equinoxes can be deduced out of the "Persistence of Force." He states it i.e. *only as an intellectual truth;* and he never once refers to the moral truth which many can see rises out of it. He presents, and he seems to see, only the mental face of that truth, and its moral aspect quite eludes him. He explains the universe, that is, just as one who should explain the action of Lady Macbeth and her husband simply in its scientific aspect, as the movement of the nerve-molecules which are the correlatives of desire, conscience, will, &c., and should say not a syllable about its moral aspect, — nothing as to whether it is abominable or praiseworthy. Conscience is to him only the strongest and deepest current of the nerve-molecules, and he draws no moral inference from this fact, nothing as to the nature of the Power that originated it; if the broad aspect of the universe shewed it to be a chamber of torture he would speak of it in precisely the same terms as if the God of Love had written His name athwart every part. He is only a logician; he only presents the intellectual look of all things; his whole Philosophy is outside the moral realm; high as it is in moral tone, this is only the lofty aspect truth must wear; it is really un-moral; and it knows nothing of guilt or sin or crime save as it shews to the satisfaction of the intellect that these tend to the detriment of the race. He states

indeed that his aim, throughout his whole Philosophy, has been to give "a *scientific* basis[a]" to morals; now this is good and praiseworthy, and I hold him thereby to have rendered noble service to mankind. To shew that high morality necessarily conduces to the highest life and joy is to do much to make mankind practise that morality. Nevertheless *moral questions have another aspect than the scientific.* Science can only shew their mental aspect, in the same way as she shews that a sufficient current of electricity will decompose water: the whole of the moral realm is outside of her sphere. The moral is an aspect which her processes wear; a subtle element which runs along the mental lines she indicates; another side of the atomic movements she formulates; but it is something which does not come within her ken; something which she can no more touch than she can touch Mind; something which has, between itself and the Matter with which she deals, an abyss she can never hope to pass. As then Mr. Spencer has only aimed to shew the *scientific* basis of morals, it is manifest he has himself elected to remain, throughout his Philosophy, outside of the moral realm.

But can we hold with any truth whatever that the intellect alone can exhaust all the contents of a series of phenomena? Will any man, desiring credit for common sense, to say nothing of right feeling, declare that in the action of Lady Macbeth and her husband there is nothing more than an intellectual aspect? When we have explained the movement of every molecule in terms of force, when all the nerve-currents are mapped out before us as clearly as the counties of England, does it not still remain true that,—riding upon those nerve-currents, moving through the paths they make,—there is another element, not of an intellectual, but of a moral order; and that, until this moral aspect be supplied, one of the elements of the phenomena,—and in this case by far the most important element,—has not been stated at all? Surely any system of philosophy which denies the existence of this moral aspect of things is in downright opposition to the

[a] "Data of Ethics," Preface, p. 1.

common sense of mankind: it is flatly contradicted by the systems of criminal jurisprudence all over the world; it is opposed to all our deepest and noblest instincts; and I venture to prophesy that any such system is doomed swiftly to perish. Mr. Spencer does not appear at present to have distinctly committed himself to either side; he only *ignores* the moral aspect, and, so far as I know, he has never denied it.

Now it is this ignoring and overlooking of the moral aspect of actions which seems to me the Bias of Agnosticism. It is a tendency or habit of mind displayed constantly by Agnostics, by Mr. Spencer as head and chief, which is in my judgment,—and I try to judge fairly,—unjust, unphilosophical, and indicative of what in others would look like moral or religious antipathy.

We have seen that every sequence of events is susceptible of two explanations. It may be explained 1. in terms of intellect; and by that means we exhaust its entire intellectual content. And 2. it may be explained in terms of intellect, *with an added moral element;* and by that means, — *whilst leaving the intellectual explanation untouched,* — we now paint, upon its intellectual shape, *the moral shades* we discern it should have. We are just as faithful to Reason in the second explanation as in the first; we decline to accept any truth our Reason cannot comprehend; we insist just as much on absolute scientific precision; but, over and above all this, we, in the second mode of explanation, take account of the moral aspect, and declare the sequences to wear a good, bad, or indifferent look. By the first explanation we explain Lady Macbeth's action in terms of intellect only; by the second explanation we brand upon its intellectual shape — "a cruel and dastardly murder."

Now all Agnostics, I am sure, so judge of this crime. They concur in the common opinions of just men as to its moral demerit. So they judge of all human actions. What then seems to me their unjust bias is that, in dealing with the aspect presented by the universe, *they no longer apply the principles they are compelled to use in life;*

they are content to explain its phenomena in terms of intellect only; and its moral aspect they persistently ignore.

No demonstration can be needed that Agnostics do ignore this moral element. No more massive proof of this fact can possibly be given than their assertion that the Power manifest in the universe is Unknowable. In making this assertion they present, as a chief demand, that their intellect shall be satisfied. We have seen that to satisfy even one Agnostic on this point he must become the Supreme God of the universe. Setting up this demand then,—which is simply preposterous, and quite inconsistent with philosophical modesty,—they, because it cannot be granted, refuse to believe that the Power manifest in the universe is Personal, and, on account of this intellectual inability, they decline to see in this Power any moral qualities at all. What then can be plainer than that they set up the intellectual aspect, that they ignore the moral aspect; that they look only on the first, and persistently avoid the second? So constantly is this done that it seems a distinct, and I fear I must say, an unworthy bias,—a bias inconsistent with the character of a lover of truth.

Obviously there can be no honest union between Religion and Science save on the basis of the acknowledgment on both sides of the full-orbed truth. Nothing save what is true in both can ever be united. But a religion such as a man of the largest and strongest intelligence can accept must be faithful to all the dictates of Reason. No powerful mind can allow that Reason and Revelation are in two different spheres of thought, and do not coincide. Mr. Spencer on the side of Reason has shewn, or is believed to have shewn, that Reason and Revelation are hopelessly discordant, that Reason affirms the Unknowableness of the Power whom Revelation professes to make known. These are in deadly antagonism: no reconciliation between them is possible. It is therefore incumbent on upholders of Revelation, who also hold that Reason and Revelation coincide, to examine Mr. Spencer's arguments, and point out some place where he is unfaithful

to Reason. This I have now striven to do. If an Agnostic, wishing to be logical, asks where and how is it that his Reason misleads him, I reply, in the display of this bias, in the ignoring of the moral aspect of the universe. That is the point where Agnostics go astray. That moral element is the deepest and most structural element in the whole of creation; and the position of any one with regard to it is that which fixes character, life, destiny, as long as consciousness lasts. It makes a dividing line which goes beneath all other divisions; and as long as Agnostics ignore this supreme distinction, they will be hopelessly cut off from agreement with either Reason or Religion.

It may be indeed that Logic alone does not supply argument of such strength as to *compel* belief in the moral aspect of things. If a man cannot find any sense of good and evil, any divine voice in himself, and can see no trace of it in humanity, it is not easy to see how he can be forced to allow its existence. He may I think, however, justly be regarded as a psychological curiosity, as unaccountable and abnormal as one who is uncertain about his own personality. The sound common sense of mankind may justly set aside such vagaries; and may hold that the moral element in men and things is just as certainly an existence as the mental element. Yet it is possible that, for each individual, the evidence of the existence of this moral element has been purposely left something less than demonstration. The Power that made us may have intentionally placed us between these two alternatives, in order that the logical faculty being left free, the heart might remain the more unbiassed, and thus might shew by its choice to which it inclined. The alternative given to the ancient hero may be that which is placed before us all. We may fashion our world-system out of pleasure—the pleasure of an intellectual explanation of its wonders,—or we may fashion it out of virtue, regarding all intellect as subordinate to goodness, and as meant to conduce to practical elevation of life.

And here we reach, it seems to me, a principle or canon which may justly be called eternal. We obtain an argu-

ment which, in the nature of the case, can never change or pass away. It was stated in the beginning of this volume that by waiving all minor objections and allowing that Mr. Spencer had unified all knowledge, we should gain the largest possible base,—the whole area of the Knowable, —on which to erect an argument for Theism. We have now seen that the unity fashioned for us by the Evolution hypothesis, is, in its every part, perfectly consistent with the notion that it is the result of a high moral design. We have also sufficiently explored all the depths and soared to all the heights Philosophy can reach. We have traversed her whole territory, and have discovered no truth inconsistent with the hypothesis of Theism. And we have conceded everything that Science can for all time demand. As before remarked, she can only unify the universe; she cannot reduce her knowledge to less than one generalization. We have now seen the *tout ensemble* of things. We have obtained a view of the universe which will not be greatly changed whilst the race of man endures. To all coming time, then, as long as any explanation of the universe is attempted, there will always be these two possible hypotheses:—1. The intellectual explanation only of phenomena;—2. This explanation regarded simply as the framework along which a moral purpose runs.

The first is the Agnostic and Atheistic explanation: the second is the explanation that necessitates Theism. It may be that the cause why men choose these different sides is not to be found in any intellectual necessity, but in a moral bias. Which bias—the Agnostic or the Theistic —is most reasonable, most philosophical, most in accordance with common sense, most in agreement with the whole area of our nature, most worthy of us as men, most honorable in a moral aspect, will be examined in the following chapters.

CHAPTER V.

THE FINAL ALTERNATIVE: INTELLECT, OR INTELLECT AND GOODNESS.

WE have now seen that the manifested universe, with all the laws in it, may be explained either in terms of intellect and force only; or in those terms regarded as the road along which a moral purpose runs. As we scan its appearance, as we grasp its *tout ensemble*, and see the whole of the vast net-work of Law, we can explain that Law as the mere movement of Force,—of Force guided by Intelligence,—or as only the instrument wielded by a Moral Agent. The former of these modes leads to the Atheistic and Agnostic belief; the latter leads to the Theistic position. Logic, *since it deals only with those shapes of things which are cognizable by the Intellect*, can perhaps be satisfied by either mode of interpretation: at any rate the Agnostic mode can assuredly claim no superiority; and the truth may be that the evidence for each of these two possible interpretations has been designed not greatly to preponderate in order that we might be left free; and, by being required to make our choice between them, might more distinctly shew our moral nature. This would obviously carry on the principle we have before discovered, viz., that each organism shall be free to choose the right or the wrong, in order to educate and call up a loyalty for the right.

It will thus be seen that the ordinary contention of the Agnostic, that faithfulness to his intellect requires his acceptance of the Agnostic tenets, has in it no manner of truth. It has been presented by many Agnostics—notably by the late Professor Clifford,—as an overwhelming argument; and some have represented Theists as weakly yielding to the longings of the heart, in opposition to the truths given them by the intellect. Some Theists perhaps are of this invertebrate type. But it is not wise or

just on the part of Agnostics to assume that all are of this class. Many, like myself, accept heartily and with admiration nearly the whole of Mr. Spencer's Philosophy; and as soon as Science bridges over the inorganic and the organic, we can accept their union at once; but we are not conscious of even the faintest tinge of the Agnostic belief. To my mind Mr. Spencer has made the argument for Theism more unanswerable than it has ever been before. And it is far better that the Agnostic's assumption that he only has fully grasped the Spencerian Philosophy, and is faithful to the demands of his intellect, should cease; it has in it neither justice nor modesty; and it is inconsistent with the true philosophical spirit.

This being premised,—allowing at least for the sake of argument that logic alone can be satisfied with either interpretation,—let us look at these two aspects once again.

The union in one law of the three *maxima* of Joy, Life and Goodness may serve as an example. That may be explained,—as Mr. Spencer explains it,—in terms of force and intellect alone. We may say that, on the principle of Evolution, an organism, responding to, and becoming developed by, changes in its environment, comes into the possession of a greater life; and that such larger measure of life yields a larger area out of which pleasure can arise; and hence that if the creature develops normally and naturally,—i.e. if it moves along the paths which are in accordance with its organization,—this greater life will bring greater pleasure; but if on the contrary, it moves along a retrograde way,—if it goes against its organization, and in the teeth of that tidal wave of nervous force which has brought it into being,—it will have pain. By this explanation, then, we fairly exhaust the whole content that logic need discover. We are not forced to go any farther or see any more. But accepting the whole of this we may also make it a part of a larger generalization. We may say that a high Moral Purpose arranged that largeness of life, pleasure and goodness should go hand

in hand, in order to secure the *maxima* of all the three. And of these two interpretations as the second includes the whole of the first, and adds something besides, obviously the second is more in accord with our full-orbed nature, and therefore has, for this reason, a higher warrant than the first.

We saw what the two interpretations were in the case of the murder of Duncan by Lady Macbeth and her husband. The first interpretation set forth the event in terms of intellect and force only; and thus it left unstated what nearly all men are forced to allow was by far the most important element. The second interpretation accepted the whole of the first, but it also put upon this the appropriate moral coloring, called it "a cruel and dastardly murder."

The first mode of interpretation of the aspect of the universe is that which Agnostics follow. That is the mode at present adopted by Mr. Spencer. He explains the universe in terms of intellect and force. He ignores the moral aspect, and sees only the intellectual side of moral principles. The Theistic interpretation allows for the intellect and force as distinctly as the other; but it gives to these a moral coloring,—holds them to be only the modes of action of a Moral Agent. On the face of it then, this latter seems to be the just and natural interpretation. It interprets the aspect of the universe in the same way as we are forced to interpret any event in life.

Perhaps it will be said;—This is anthropomorphism. Let us understand what anthropomorphism means. It can only mean this;—that, since we are men, we are forced to look at everything through human eyes, and to estimate it according to canons of human judgment. Science is nothing but an anthropomorphism: it is nothing more than the aspect of the universe presented in the μορφή of an ἄνθρωπος: if we are to have any knowledge at all how can we express it save in terms of our own intelligence? Our intellect must supply the rules of judgment, must give shape to the universe according to its own canons; and if we decide that we have other

powers than intellectual, and that the aspect of the universe is such as to shew that powers like these have been employed to fashion it, we have, it seems to me, high philosophic warrant for concluding that such powers have been at work in it.

Have we then powers other than intellectual—have we any of the order called moral? Is there in us any faculty which witnesses for and points to the right? Do we hear any divine voice within us, and do we regard this as the supreme rule of life? Now different men—even different Agnostics—will vary in their answers to this question; but it is important for us to notice that the answer each one gives is a searching test and indication of his own moral state.

Suppose we have before us some deed of great barbarity, an act of treachery and murder. We ask an Agnostic;—What is your judgment on that event? Let us assume that he answers on strictly Agnostic lines, and declares that he can see in the deed only the operation of an Intelligent Force. We further test him by asking can he see in acts of falsehood, murder, cruelty, impurity, nothing that is not of the order of force and intellect, nothing from which his nature utterly recoils. Do all these appear to him only as a set of series and sequences, with no more moral element than a chemical equation? Is he perfectly indifferent to all moral questions? Can nothing rouse him to the feeling of moral indignation? And conversely, can he see nothing worthy of honour in magnanimity, in justice, in self-control, in self-sacrifice, in truthfulness, in purity, in righteousness, in benevolence? Can he possibly regard these last qualities in the same light in which he regards the first? Will he portray the extremes of moral being in the same neutral tint? Are the cowards to him the same as the heroes, the scoundrels as the men conspicuous for justice? does Iago stand on the same level as Desdemona, Caliban as Prospero, Regan and Goneril as Cordelia? Every action is as we have seen interpretable only in terms of force and intellect; and no one is absolutely obliged to see anything else in it. A

man *may* therefore take up this position; and perhaps it is logically unassailable.

But a man who does take it up tells us at once what is his moral character. We know in an instant that he has not an atom of goodness. He has not, or he seems not to have, that unit in his consciousness out of which moral conceptions are fashioned. If such a man exists, which I greatly doubt, he is, to my mind, in a lower moral condition than any character in history or fiction with which I am acquainted. A man may sin when the blood is hot in the veins, and yet may not forfeit his claim to be a man, but this cold colorless nature whom no cruelty can rouse to indignation, whom no moral majesty can fire with enthusiasm, who is absolutely indifferent on all the great questions of being, who feels nothing of loyalty to the right, nothing of hatred to the wrong, is surely nothing less than a psychological monstrosity, from whom we recoil with a power words are not able to set forth. He seems like a spirit of another world; and we can hardly detect in him the beating of a human heart.

It is not likely however that such a one exists. No one can so absolutely repress the proper feelings and sympathies of our race. At any rate Mr. Spencer, so gentle and courteous and noble, is an infinite remove from such a condition. He I am sure sees the moral element in human actions, in men and women around, and in history. As we saw he requires his own intellectual work to be informed with it. Probably he does not write a line into which he does not make it enter. All his works are only intellectual roads along which a moral purpose runs. He is aiming through them to bring large and enduring good to the race.

But this moral nobility in him only makes his logical position as an Agnostic more indefensible. For if there is this moral element in *his* nature, and in *his* works, how comes it that he does not suffuse with the same moral tinge the aspect of creation? Why does he not interpret all he sees in terms of *his full-orbed nature?* As he projects his intellect into the outside world, and makes it

assume the shape his intellect imposes, why does he not similarly project his heart and his moral sense into the same world, and make it wear the colors in which these array it? If one process is an anthropomorphism so is the other. He practises and defends the one; what logical reason then can he have for ignoring the other?

It may be of course that the intellectual difficulty of reconciling Personality and Infinity has hitherto stood in his way. He may have seen this difficulty; and may not have examined it with the care he has given to other parts of his system. Otherwise I see not how to account for his conduct, save on the supposition of an unworthy bias, which supposition I at present reject. But I think it has now been shewn that the only Mind which can mentally harmonise Personality and Infinity is the Mind of the Supreme Deity. Surely then this difficulty is disposed of. Then must not the argument for the moral aspect of things stand with nothing to oppose it? Logic being satisfied, leaves the heart free to make its choice. It may elect for Intellect and Force only,—but in that case it proclaims its want of loyalty to goodness;—it may charge these with a moral element, put into them its own nobleness, interpret them in terms of its own rectitude.

And in proportion as a man is morally exalted, will he be compelled to see in the universe this moral element. For that moral exaltation implies that his whole nature is filled with those qualities which make up such exaltation. Heart, mind, will, all his powers, are filled with, and controlled by it. Imagination, aspiration, purpose, desire, conduct, all alike are informed by justice, purity, truth, sweetness, magnanimity, benevolence, love. These will form the inner atmosphere through which he looks out on all things. They supply the units out of which all his conceptions are formed. Then, by instinct,—as a native and primal intuition,—he must see the same qualities in the world. He must project his own self into what he sees; he must give everything the colors of his own being. If pure in heart he cannot avoid seeing the face of God.

This then seems to me the final alternative laid open

before us. We may elect whether we will be content with Intellect and Force alone, or whether we will have, in addition to these, a moral element. Our decision on this matter is a decision of the great question of our being. Choosing the un-moral aspect, we shall be Atheists or Agnostics; choosing the moral aspect we make our election for Theism.

CHAPTER VI.

THE FINAL TEST: ESTABLISHMENT OF COMPLETE CONGRUITY.

MR. SPENCER has reminded us that the final justification and proof of a philosophical system is the establishment of complete congruity between its several parts. This is a far-reaching conception; and it affords an extended, searching, and exact test of truth. It proceeds on the supposition that Truth is a unity; and that if we commence to build, in various parts of the philosophical realm, upon true premisses, carry on our building in each part according to true canons, insert into our structures nothing but truth, then, manifestly, when we come to effect a junction between the several parts of our building, we shall find that they harmonise; and the several builders (like the workers in the Mont Cenis tunnel) will find that the lines and faces set up by each worker exactly coincide with those set up by the others. Whereas error, being wrong, can never agree with truth; the mutual discordances must often appear, and a philosophic unity be impossible.

If now we ask which can best satisfy this test,—the Agnostic or the Theistic interpretation of the universe,—it seems to me that the Agnostic creed resolves itself into something like a jumble of incongruous absurdities; whilst the Theistic creed resolves itself into a noble, stately and well-proportioned unity. Let us look only at some of the discrepancies involved in the Agnostic belief.

Is the Force Unintelligent; and is Mind,—or that which thinks,—in its last analysis, only an outcome of Matter. This of course negatives both Intelligence and Moral Purpose. The negation of Intelligence may have two forms;—1. Mind may be denied to exist either in men, or in the Power from whence men proceeded. 2. Mind may be allowed to men, but denied to the Originator of men. Either alternative bristles with absurdities.

On the first supposition: — Mr. Spencer's Philosophy is hopelessly discordant. He proclaims it as a truth transcending all others in certainty that Mind exists, and that it is to Matter as x is to y. But the endurance of a great philosophical system is a comparative trifle to all save Mr. Spencer. Let us come then to an absurdity which compromises the whole race. All those terms which denote Invention, Design, Adaptation of means to ends,— all those general principles out of which come Mechanical contrivance, Logical sequence, the plot or design in Poetry, Music, Painting, Sculpture, Architecture, Engineering,— all that ordered sequence which men thought they saw in Philosophy, Ethics, Science,—with the things and ideas they connote,—must henceforth drop away from us; and we must accept this tremendous conclusion that in the whole human universe there is nowhere any scintillation of Mind. Further, Science falls in utter confusion; it is an unassorted chaos of falsehoods; it has not a fact, not an observation, not a principle, not an induction, not a generalization; of laws it knows nothing; its visions of the universe are illusions; it is utterly blind, unintelligent, mechanical. The men who have extended its empire are only automata, the mere puppets of circumstances, scientific machines who grind out results, but have in them no trace of the intelligence that we have hitherto held Babbage's Calculator to possess. Amongst all the *savants* of the British Association, amongst the gathered intellects of the whole world, there is not a particle of common sense; Intelligence does not exist; the whole race are mental imbeciles; they are something lower than idiots, for idiots have—at least we have heretofore believed them to have—a perverted and confused Mind, but now, the last outcome of divine Philosophy is that the race is hopelessly bereft of reason; that it is lacking in the first feeble germs out of which reason might arise. Not only so, but without Mind our sense of Personality and Identity is an entire illusion; our Consciousness is in hopeless contradiction with itself; we have no knowledge of anything,—and never can have any,—and if any one of our race can add

anything more to this climax of absurdities he is quite justified in so doing. Indeed if we have no Intelligence why should we speak of absurdities; to a being with no Mind they cannot exist.

That is one possible aspect of the denial of Mind. Let us now look at the supposition which allows Mind to men, but denies it to the Power that originated men.

On this supposition Mr. Spencer's Philosophy is just as hopeless a ruin. He has stated, we have many times seen, the utter and unparalleled divergence between Mind and Matter. But this supposition makes the Mind in men to have grown out of an Unintelligent Force, which is as good as saying that Matter has evolved Mind. And just as before, hosts of absurdities start up. As on this hypothesis we men have Mind, we may lay down the canon, given us by the Mind, that what is unthinkable—save in regions we can prove too high for us—we cannot accept. Mind then can design, Matter cannot design; to say therefore that Matter produced without Intelligence that which we recognise as the proof of Intelligence is to assert a contradiction in terms; which consciousness forbids our accepting. It is to deny our native and primary intuitions; to insult common sense. To say that x can change into y is to overthrow Mathematics. Yet again. The first organisms, not guided by Intelligence, set out on that line of march which has brought us to Newtons and Shaksperes! They had no Mind at starting, none was supplied on the road, but they evolved into what had Mind!—a succession of zeros being often repeated at length mounted up to unity, a congeries of nothings evolved something! Once more. To create a Hamlet demands the mind of a Shakspere, but no Mind at all is needed to create a Shakspere! "Cause and effect are only the two sides of an equation," says the "Persistence of Force;" the effect, Shakspere, has Mind, but the Cause of that effect,—the Unknown Power,—is destitute of Mind. "Organization answers to environment," says Mr. Spencer; they are as the impress, and the die with which the impress is made. Now the organization Shakspere has

Mind, but the environment,—the die which shaped him,—has no Mind! Mentally to grasp the universe demands a Mind of the largest calibre, but to fashion that universe demanded no Mind at all! To originate a generalization demands greater mental powers than to understand it when originated;—to understand the universe demands greater mental power than any man yet possesses, but to originate that universe demanded no Intelligence whatever! The universe displays Power which may justly be called Omnipotent, but as it is destitute of Intelligence,—and as we must rank Intelligence higher than non-Intelligence,—it follows that the feeblest child of the humblest human mother stands on a higher grade of being than the Omnipotent Existence that has produced all things! To what other climax of absurdity, folly and blasphemy this falsehood might conduct us, I know not; but I think enough has been said to make men of sense perceive its features.

Lastly, let us try to conceive the possibility that there may be Mind in men, and in the Author of Nature; but that no *Moral* elements are discernible. As before, this divides into two possibilities. 1. That there are no moral qualities or aims in either the Creator or men. 2. That there are such qualities in men, but not in the Creator. This allows for Design, but negatives moral design. Here the absurdities are not so glaring, but they are sufficiently pronounced.

To say that there is Intelligence in the Creator and in man, but that such Intelligence has no moral aspect, seems to me a proposition as unthinkable as to conceive Space or Extension without color. The Intellect gives shape—it supplies the *form* in which we see the world,—and it seems to me this *form* or *shape* must be filled up with another quality, must wear a moral tinge. Again the very notion of Intelligence, and of Intelligent Design, is the adaptation of means to compass an end. End or aim is implied in all design. That end or aim must then be of some sort, must wear some characters, must be interpretable in some mode. Clearly then, it seems to me,

Design must have some τέλος which is outside of the intellectual region. This conclusion reached *à priori* is confirmed from *à posteriori* sources. In all works of Design known to us we can perceive that there was an aim distinctly kept in view; and hence if the universe has been fashioned by Intelligence, which Intelligence has however had no distinct aim, it clearly stands out as absolutely unique; and such a miracle could be received only on overwhelming evidence. And if the universe has a Purpose running through it, that Purpose must wear some complexion; and it may be a moral one. Design until its aim is reached is an unfinished thing: we have design; let us then complete the logical idea; we are forced, it seems to me, to some other idea, the aim or τέλος of the whole. Moreover, if the whole moral element is to be taken out of human life, nearly as much of our Art, Poetry, Ethics, Politics, Philosophy, nearly as much of the collected knowledge of the world, nearly as much of our common speech, must fall away as before: on this supposition, the entire history of the race must be re-written; all our greatest, deepest, noblest thinkers are profoundly at fault; all Jurisprudence, Law, Government rest upon a radical falsehood; society has been built up by means of a lie; the central principle of human life is a complete illusion! It is no use for Mr. Spencer to say that bad is the name given to conduct that shortens life, and good to that which preserves it,—that may be partly true, but it is not the whole truth. Men have held for the last four thousand years a deeper truth than this; they have not judged actions by their results, but by a deep inward principle, by a native sense of right; and if now that principle is to pass out of our thought, it means a moral revolution greater than any ever before known. It means a complete reversal of the thought of the race. But thus to break with the past is surely in the highest degree unphilosophical; it is to tear up by the roots conceptions which have lived in men's minds during thousands of years; it is no orderly evolution and development of thought, but rather a retrogression; it is a step towards

the intellectual and moral barbarism from which we have emerged. Continually through the ages moral conceptions and moral refinement have been growing, moral distinctions have been appearing deeper, wider, more enduring; to the greatest men of all time they appear most profound and unalterable; and is it to be the last outcome of divine Philosophy that she proclaims these to be only illusions, distinctions not founded on fact, but transitory only, and destined to pass away? That is Mr. Spencer's position; and may we not justly say that he has the whole force of the deepest and greatest institutions in the world against him? Moreover, as we saw, we cannot, in this case, make any distinction, of a *moral* order, between actions; all are intelligible as evolutions of force; and sins, crimes, righteousnesses and magnanimities stand on just the same level. If there is no moral element in men, the patriot and the traitor, Sidney and Judas, are equally deserving of homage. How much more our moral sense might be shocked by carrying on this falsehood it were hard to say.

Let us look at the other alternative, that there are Moral qualities in men, but none in the Intelligent Cause of men.

It is clear on the face of it that this is a proposition which never can be established. For, in the first place, it is a negative proposition, affirming what cannot be proved. Moreover it is quite unthinkable to us. For as *we* have moral qualities, as they dwell in us, they form the atmosphere through which we look out on all things; and to require us to think an Intelligent existence devoid of them is to require us to unhumanise ourselves,—to be what we are not and never can be. Necessarily it is also in the teeth of all analogy. We have seen Mr. Spencer's law linking together the three *maxima* of joy, goodness and power. Now this law, by hypothesis, came from the Omnipotent Intelligence; it is the outcome of His Design, and if in Him there is no goodness, by what possible collocation of circumstances did the goodness come into us? Moreover, if in our world these three are united, if with us Power can be acquired only by a pre-venient good-

ness, how could the Supreme Power be destitute of such goodness? By no logical steps can we go from the conception of Omnipotence destitute of goodness to the conception of Power, (*being an outcome of that Omnipotence,*) which has been called up by goodness. As that Unmoral Omnipotence realises itself it embodies some of its Power in other existences; these existences must be like itself un-moral; if then we find they become moral, that is a clear break in the thought: and if we find that they acquired Power by being the opposite of the Supreme Power, and yet were evolved by this Supreme Power, we have a charming tangle of logical contradictories which Agnostics must be left to unravel. These absurdities appearing in the abstract are not less in the concrete. The illustrations before used will suffice. The first organisms (not guided by Moral Purpose) set out on that line of march which has brought us to the charities and magnanimities the noblest men and women in the world have displayed! They began with Intelligence only,—that was supplied them,—but it had no moral quality; an environment was put around them, but it had no moral aim; they set out on their course across the unknown; the steps they took determined their organization; their organization determined that of their successors; these determined the next race; and so onward, without one break;—every step the necessary result of the last,—until at length we reach the moral grandeur of our race. Now as this first ascidian set the whole going,—as it gave the first touch to the moral pendulum, which acted on nature's clockwork, and finally produced saints and heroes,—surely this humble organism must be honoured as the efficient cause of all human goodness, and the reverence the Agnostic refuses to the Lord God Almighty he is logically bound to give to the lowliest mollusc! Yet again—Moral education is admittedly the most difficult task. To raise appreciably the moral plane of a community demands the highest qualities of head and heart. Now something or some force has urged the human race from the condition of abject and brutal savages

to the tendernesses and courtesies of the highest European life. Yet that something is un-moral! To fashion a St. Francis of Assisi demands moral qualities of the highest order, yet no moral qualities were needed to fashion his originator! "Cause and effect are only the two sides of an equation;"—the effect,—St. Francis,—has goodness; the Cause—the Unknown Power—has none! "Organization answers to environment;"—the organization is the organism known as the race of man,—that has moral qualities, but the environment,—the Unknown Power, the universe that shaped it—has none! To understand and enter into the highest sanctities of a Mrs. Barrett Browning, a Fenelon, a Moses, a St. Paul, a St. John, demands moral power of the largest, most refined, most elevated type; but to originate those sanctities,—to touch intellect with holiness as the Alpine summits are crimsoned by the sun,—demanded no moral power at all! And if Agnostics want any further proof of the absurdity of the dogmas that form a logical part of their belief, let us present an argument *ad verecundiam*. We saw that the aspect of the universe, on Mr. Spencer's own shewing, is that of a home, arranged more lovingly than any home the most affectionate mother ever appointed for her children; if then the Power that arranged this is destitute of Moral qualities, which Moral qualities Agnostics admit they possess, clearly they have no choice but to step on to the last climax of their assertion, and declare that they are morally more exalted than the Un-moral Author of all things! Atheism, amongst all but the lowest, has been ground to powder by the steam-hammer proposition that an Atheist virtually claims the prerogatives of Deity;—many men have seen that Agnosticism has a vein of Atheism running through it; we before marked that its leading tenet, that the Power in the universe is Unknowable, is held to be proved by what is a logical result of man's inferiority to Deity: this alone is going perilously near to the Atheistic climax; and if the further step be taken, and moral qualities be allowed to men, but denied to the Author of all, I think that climax is reached. And if the

Agnostic asserts nescience of the Creator's character, but knowledge of men's character,—if he puts a blank over the Supreme Power, but traces on the work of men the fair characters of Moral purpose, and if he defends this difference of treatment on the ground that he cannot grasp an Infinite Personality,—that is only to say he will not give to the Creator the honour he gives to men because mentally he is inferior to that Creator. The intellectual inferiority shall be to him a complete bar to reverence or worship; he will bring no adoration since he does not stand on the mental level of his Maker; men he is ready to honour, they are only his equals, but any One who possesses a more exalted nature than he shall receive from him neither praise nor prayer. This spirit surely contains the very essence of Atheism; and may justly be left to the scorn and reprobation of mankind.

In whatever way then we look at the Agnostic creed, we find it is no logical whole, but an incoherent bundle of absurdities, which can scarcely elsewhere find a parallel. Our verifying faculty utterly refuses to accept it; it has no manner of sense or reason on its side; it is a mental chaos; it is full of fancies suited only for children; the inconsistencies of intellectual barbarism form some of its structural elements; of reasonable philosophic modesty it has no trace; in its last analysis it reveals itself as the expression of insensate intellectual pride; it is charged with deadly forces which, allowed to prevail, would emasculate and corrupt the race; it deserves no mercy at the hands of sensible men.

Let us now turn to the more congenial task of examining the character of the Theistic structure. Here we shall find ourselves once again in the region of sober common sense; we shall be asked no more to break with probabilities, but shall proceed by regular, logical steps.

The universe reveals Power that may justly be called Omnipresent. No measure that we can devise can reach to the end of its tether. Go as far as we may amidst the blazing worlds that stud the infinities of space, we find

no limit, no weariness, or sign of exhaustion; but they still stretch on, in continuous lines of light, like colonnades of fire, as if to point the way to some magnificent palace, or as if they were aisles and arches of some vast cathedral where lofty worship was for ever to ascend. The Power that fashioned them, be that Power who He may, works on such a scale that to His eye the distance between star and star can be but infinitesimal, and hence those stars may form to Him one material temple; and the glow and glory of light and color, the splendours of sunrise, the changes of seasons, an ever-varying adornment with which nave and aisle and transept of that cathedral are graced. This infinity evidenced on the large scale is not less manifest in the minute. We men stand at the junction of the two; or rather we are placed opposite one little portion of that one broad aisle of light and wisdom and power which stretches, in unbroken continuance, from the obscurity of infinite littleness until its light again becomes obscured by the infinite vastness: we can stand and look a short distance either way, but a Sufficient Intelligence placed where we are could see the same cathedral stretching in both directions, the splendours of the diatoms the counterpart on the small scale of the blazing worlds that light up the larger spaces. And nothing save some such imagery as this can make us understand the dimensions of the Power with Whom we have to do; and the scale on which He is accustomed to work. The spaces of His Being become too great for reason to grasp; we are forced to call in the aid of imagination and poetry—in order to give a perceptible concrete clothing to the abstract conceptions which set Him forth. Can we then think that this wonder-working Power is lacking in the intelligence which we possess? When we make an orrery which by an arrangement of wheels and pinions does little more than caricature the movements of the planetary bodies, we hold it to be the result of intelligence, and can we fancy that the Power which built up the system of the heavens is inferior in Mind to one who makes a mere scientific toy? This surely is impossible. This first con-

clusion then, that the Omnipresent Cause of all things is Intelligent, is clearly in structural harmony with all we have learned, with the analogy of nature, with the appearance of the universe, with the most certain truths of Science and Philosophy, with the whole breadth of our natures, in fine with the whole area of the Knowable. To assert the contrary proposition seems to me nothing less than an affront to the collective intelligence of the race. To say that the Power Who made us is not intelligent is to deny intelligence to ourselves. Deciding then that the universe is the work of this Power, we are forced by a necessity of our intelligence, to require some end or aim which that work shall manifest. The universe must have some τέλος, for the essence of the conception of intelligence displayed in work, is the adaptation of means to ends. With an Intelligence, Final causes must precede Efficient causes; there must be a notion or design of what is going to be done, before it is actually carried out. We require then, to make our structure logical, some Design or aim, running through our universe, having a duration, a scale, a majesty, a utility, worthy of the powers of the Omnipresent Causal Intelligence. And, as we proceed, our canon of judgment must grow more severe and exacting. The Worker must move with the step and dignity of Deity; the movements must be on a scale, and they must eventuate in a result, worthy of the Power which has built such a mighty temple in which that result should be finally enshrined. We have as the base of our building the starry universe, with all the wisdom, power, and glory it makes manifest. Starting from this we can allow no anti-climax. The design, whatever it be, must move in ordered progression, ever growing greater, ever more sublime and more worthy, more in keeping with the majesty of the King. The procession which begins with the march of the spheres, must grow to more imposing dimensions; the music which has universal nature as the orchestra must in some way rise to a more celestial anthem. But the Power seems already to have exhausted the utmost possibilities that mere *quantity* will allow of; and if any-

thing higher is to be attained it can only be in *quality*. Will not such a Power then regard the infinite areas and worlds of space as only an adumbration of an infinite that may be reached in another direction? In mere extent of working that Power can apparently do no more; but obviously there is an upward path, there is an infinity of quality; and that high temple which extends through all space may be filled with a worthy assemblage of worshippers, each one of whom is like the King. Now if this be the design of creation,—if the aim in our universe is to raise up a race of beings who are to embody as much as may be possible of the moral and spiritual infinite, who are to shadow forth the higher perfections of God, as the universe shadows His lower attributes,—who will not say that such a Design is an end worthy of its first beginnings, worthy of the Power and Wisdom of Him from Whom the universe proceeded?

This conception links together all the highest attributes known to us, and each one of them in an infinite degree. The Power made manifest is of a far higher character than any inanimate universe could shew. For that universe is only a *thing* God has made; but to make a being having the Spirit-nature of *God* is obviously a far greater triumph. The Wisdom similarly rises in the scale. To co-ordinate the movements of suns and make them march to the music of law, is a work possible only to Omniscience; but to co-ordinate the movements of Intelligences, and hold them in free yet loyal subjection, requires a Wisdom to which the former were but folly. In proportion also as the Intelligences so to be raised up are like God will those Intelligences be able to display the higher attributes of God. There will be less left unrevealed by reason of the imperfection of the revealing medium: each one will be as a λόγος by which God makes communication to His creatures, and in proportion as that λόγος nears or approaches the greatness and glory of the Supreme Deity will that glory shine forth. Each such being will be like a door opened in heaven through which the Eternal Light will shine. Thus the manifested glory of God will be increased

by the majestic proportions of the beings His hand creates. Not less will be the exaltation to His righteousness. For the greater and more sublime the vessels in which He places that righteousness, the more conspicuous must it appear; and if He secures an army of light which freely espouses His cause, and upholds His dominion, He, by this means, increases the sum total of right in the universe. And yet more than all does such a scheme exalt His love. For how can it be conceived possible for Him to devise a plan more fraught with love of the greatest and most sublime character, than the raising up of a race of beings who shall be as nearly as possible like Himself? That is a thought worthy of a God—a thought great enough to fill out all the time of Eternity. So far then all the parts of our structure hang firmly together, and form one solid and homogeneous whole.

This being the conclusion we reach, or might reach, *à priori*, we have now seen that the conclusion we can reach *à posteriori*, from the known aspect of the universe, exactly agrees with it. It is not necessary or desirable again to travel over that ground. We saw that the whole assemblage of laws in the universe, so far as science has yet been able to learn and tabulate them, is in exact and striking accord with this hypothesis; and that although we fearlessly admitted what every enemy of Theism could say against it, we were able to find no adverse argument, to which weight could be attached, which our hypothesis would not either explain or sweep away. We saw the relative feebleness and shallowness of the statements of John Stuart Mill as to the pain in the universe. We saw that such a conception came from not looking on the large spaces and times over which a powerful philosopher roves; and that when, on the contrary, the *tout ensemble* of the universe was beheld, all the pain in it was not only trifling compared with the pleasure, but it was all subordinated to high moral ends, and admitting us to endure it brought to us distinct gain and glory. We saw that "Natural Selection," and "Survival of the Fittest," not unfrequently reviled as evil, were, on the con-

trary, an essential part of a high moral design. And similarly I know of no adverse argument ever urged by any which this conception of the universe will not shrivel into insignificance, and possibly turn into ridicule. Moreover, think what we may of the moral end in Creation, it is quite certain that Mr. Spencer's Philosophy makes it clear that such a moral end will be attained. The universe will mould men into a condition such that sympathetic pleasure will be esteemed our highest joy, and the delight of bearing pain for others will be the commanding motive of life. This is just the martyr-spirit displayed on a small scale. Mr. Spencer builds up to this line. Here he stops. But I think I shall soon be able to shew that his lack of belief in one sublime truth, given us by Revelation, minimises and degrades the true conception; and that where Mr. Spencer stops from the lack of finer and more exalted ideas of our manhood, and of the range of being that opens up to us, the full-orbed thought of God carries on the erection, and makes it continue right on to the moral infinities of God. Thus every truth of the known universe, every conception that can be obtained from the whole area of the Knowable, fits solidly and structurally into this conception; and if any one can point to a truth not reconcileable with it, let him come forward and shew what it is.

Let us conceive then what would be the chief elements required for carrying out this design, which we now put forward as the one commanding reason why our world was called into being. If the hypothesis of Theism is the true explanation of the universe, and a moral design its true aim, all that has actually taken place must fit into this aim. If then we put down what would seem to us to be necessary constituent elements of such a plan, and then afterwards, on examining the stream of life from the first dawn of existence, find that such elements were actually employed, the two parts of our argument—*à priori*, and *à posteriori*—will join solidly together, the whole universe will fit into our design, and Theism will stand proved as the only congruous interpretation yet presented.

Such a design would then I think require nine great elements.

1. A scaffolding or structure on which Life can be reared. 2. Variety of environment to fashion the Life into corresponding variety. 3. Adequate provision to secure a vast, strong, and highly complex Life. 4. Preparation for Moral Life by some such device as the union of the three *maxima* of joy, goodness, and measure of life. 5. When the elements of which a creature is fashioned have, by the last provision, attained an incipient moral polarity, then the integration into the original system of ever new and higher elements, intended to make possible that fineness and majesty of character needed for one who is to become like God; such, e.g., as the breathing into man the breath of the Almighty, by which man became a living soul. 6. Vast and highly structured organizations—Empires, Arts, Sciences, Philosophies, Pursuits, —intended to enrich man's nature, and make him great enough to be a son of God. 7. Divinely-inspired men, who, producing adequate credentials, shall acquire mental and moral mastery over the race, and uplift the plane of the world. 8. In the fulness of time, when the world is ready for Him, a Being who can present before men an adequate and full-orbed Image of God; and so put before them the final Model and Exemplar. 9. Adequate credentials and retinue for such a Being; and provision by which He shall secure universal moral dominion, and mould the race into His own image.

Now such a scheme, which we might reach *à priori*, is so strikingly in accord with what we know to have been the course of natural law, and of our world's history, that it seems to me to need but little argument to shew how congruous are the two conceptions. Much of this area we have already traversed; very much that is congruous with it we have already seen. If now we consider it along two main lines we shall, I think, take in at any rate the bulk of the remaining elements. A being that is to be like God must voluntarily choose the character of God as its rule of life; and must also grow up towards the

dimensions of the Being of God. Thus the plan must secure to it,—Freedom and Greatness—Greatness, Mental, Moral, Spiritual.

1. Freedom. It seems certain that the great majority of men hold that voluntary loyalty is of the essence of virtue. We despise all slavish service; we see an indescribable charm in freedom; it is one of the master-passions of our race: to break every chain and stand forth disenthralled has been the inspiration of the noblest souls our histories record. And however much the Power that made us may be above us, above us that Power must be; and no conception can be true which sinks it beneath us. Godhead must range along a line which is higher than the table-land where the noblest men can walk. If then the Intelligences to be raised up are to be good, they must voluntarily choose goodness; and they must be won to this by moral suasion only. If then the Creative Power links, through the whole range of being, pleasure to right actions,—to goodness,—and pain to wrong actions,—to badness,—this simple provision, acting on organisms made susceptible by sensation to pleasure and pain, will have the effect of slowly but surely winning over all life to the free and voluntary choice of goodness. That one statute law put forth by the King practically ensures the complete triumph of righteousness. All that is needed to secure that end is a system in which pleasure and right, pain and wrong, shall be indissolubly joined; let that provision stretch onward over the entire chain of life, from molluscs to archangels, the result must be that the whole tidal wave of life shall flow with ever increasing precision, depth and volume, along the ways of righteousness. It is wonderful how this principle of Epicureanism has been applied until it has led up to the highest holiness. It cannot but be a true principle. Goodness and happiness are in God inseparably united; and it is not conceivable that they can be disunited. So to think would be equivalent to making a schism in the Deity. We need only to set this true principle in the great framework made by God's spaces and times in order to make it universally

true; and a safe guide for every human life. No doubt when set in this framework it undergoes a remarkable change. It then converts pain into a higher pleasure:—it subdues, for the martyr-spirit, the shrinking from torment, because of the martyr-inspiration which gives a sublime mastery over that torment, and of the martyr-faith which sees the weight of glory that shall result from it. One who sees the manifested glory of the King, and the vastness of the principles that in our world are at stake, will voluntarily offer his sword to his Sovereign, will ask permission to fight His battles, and breast His foes, will care for beatings and buffettings no more than a soldier cares for a few drops of rain, will say with the intrepid Apostle;—"I fill up that which is behind of the afflictions of Christ in my flesh for His body's sake, which is the Church;"—and would declare, in the spirit of the same Apostle, "and I choose this work and life in preference to the throne of imperial Rome, in preference to the sovereignty of the world, in preference to any other bauble that the universe could lay at my feet." That is the mould of man that this principle has fashioned; and higher than this the Sovereign of the universe does not ask us to go. He does not require of us the hyper-loyalty of loving virtue irrespective of its rewards: if we love virtue He is quite content: He means us to be children and sons, and when we choose His character holds it incumbent upon Him to provide us a stately inheritance. From molluscs then to St. Paul the principle holds good: a voluntary loyalty to right which runs up to the utmost height of self-sacrifice can be secured, has actually been secured, by Epicureanism, by government by pleasures and pains.

2. A second requirement, covering over a greater field than the last, is that one who is to be like God must be made very great. It will be convenient to consider this under three stages. 1. From the dawn of existence to a being of conscious moral life. 2. From this point to the time when the supreme moral standard was set up. 3. From this point to the full-orbed life of our nineteenth

century. If we trace the path followed by the Moral Designer of our world, we shall, I think, find that all has been carried out on a scale, and in a manner, worthy of the Being who fashioned the infinite temple of space.

1. Every law that we can trace in that vast area between molluscs and man, has evidently been designed to further in some way greatness of life. The Designer of the whole had some plan of which the utmost attainable vastness was a necessary constituent. It was not so much mere bulk that was desired, though even that was a requirement, but it was more especially all those qualities which seem to us to be allied to moral greatness. It was to produce compactness and condensation of power—to make every organism the finest possible—to build up every body out of the best attainable materials; and when one organism, or one set of organisms, had given to the atoms composing it the highest perfection it could confer, then those same atoms were handed on to another workman, in order that they might have the further finish this one could impart. Every law we have learned falls into this line. Thus the provision which left creatures free to diverge obviously opened up the way to well-nigh infinite possibilities of being. It made every creature, in a sense, free of the whole universe. An untried world opened up before it. The provision of hereditary descent obviously tended to swell the volume of life. The living temple of the universe was to be fashioned, and every organism was asked to join in building up a course, so as to make a structure greater and higher on which another generation might begin. The provision that the rank of a creature in the scale of being should determine the number of servants who should wait upon it, and prepare materials for its use, was obviously an arrangement tending to secure a good supply of master-builders. The provision that when a valued improvement had been introduced,—when a high structural excellence had been won,—it should be endued with special vitality and force of endurance;—was clearly the design of a Power who was aiming at refinement, excellence, intensity, and who would preserve carefully what

had been hardly gained. The provision that creatures low in the scale might reproduce their kind without the intervention of another creature, looks as if abundance of life were wanted in order to serve as scaffolding for higher existences; but the requirement that in higher existences two similarly endowed shall co-operate, is clearly a step towards securing a large unity,—towards building up a creature that shall be, at starting in life, endowed as richly as possible. The provision that organization shall respond to environment was manifestly favorable to giving the Designer power to mould each one as He chose; and as He could make that environment as large as He deemed fit, obviously the provision acted as a means of dilating, expanding, enriching every form of life. Moreover when a suited greatness had been reached, He could adjust the environment so as to produce fineness, delicacy, beauty. We saw that there was such a gradation in the geological changes. Above all, the union in one law of the three *maxima*, goodness, life, and pleasure, was nothing less than the thrust of an Omnipotent Will, urging on each creature to the highest development it could justly attain; as it was also the reward of a Beneficent Ruler, who required service from each organism, and was ready to give right nobly in return for such service. And the law of Natural Selection and Survival of the Fittest was a loving spur and incentive to each organism to play well its part in the great scheme of Creation, as well as a means of rebuking and punishing all careless or slothful workers; whilst, taken in connection with the former law, its very severity was only disguised love—its sternest tones meant only,—"Hasten onward, a mighty joy is waiting for you in advance." The calling up of the gigantic Saurians and quadrupeds of the Oolite we saw was admirably adapted to secure largeness of life: their aspects of horror, and their terrible powers, put an intensity into the world's great struggle such as it had never displayed before; and fitted it to bear the higher intensities of sublime moral life. At the same time, deep within the heart of these laws were others shewing that many of them were only

provisional, and in the nature of scaffolding; and that at the core of all were love and gentleness; and that these were destined to rule. The union of beauty with love—a structural provision of the universe running from creatures of lowest sentiency up to man—was surely nothing else than a prophecy that the strongest passion in the whole created universe should finally run up into purity and light,—was in truth the smile of God irradiating the whole of existence, and an indication that all things were answering His end, and might justly be called good [a].

[a] If we take the view that the Supreme Intelligence left each creature free to develop, within assigned bounds, as it chose, we seem to be in accord with what, as we have seen, is a great principle of the universe, and at the same time get rid of the moral difficulty in the matter which some minds keenly feel. If we ask what are the Megatherium, the Plesiosaurus, or in our own days, the lion, the tiger, the crocodile, we are compelled to say these are aspects of the Creative Power, they shew forth some aspects of that Power, in the same way as "the Almighty's form" "glasses itself" in the tempests of ocean, and there must be that in God which answers to these creatures. Yet we shrink I imagine from holding that the God of love made the fierce and deadly qualities in creatures like these. But just as we are told, in the Epistle to the Hebrews, that He found fault (Heb. viii. 8) with the Mosaic dispensation, which He Himself had fashioned, evidently because it was too rough and coarse and feeble to express the fineness of His thought,—what instrument or veil will not be below the power of expressing Him,—so may we not say, in the same way, that although He gave the living energies which have produced the animate universe, yet He is not responsible for more than the broad aspects of that universe, He finds fault with the whole world of life, as He found fault with the Mosaic world of sacrifices, and, having in His wisdom given each creature freedom, He utterly repudiates the cruelty and misery and destruction which each creature by transgressing His law of love has brought about? Manifestly there is such a principle in the divine government of the world. The broader and larger aspects of that world subserve the divine plan; they are mainly the lines the Designer traced; but the smaller, and more transitory concerns, have in them more of the handiwork of man, and for these God is not chargeable. "Moses, because of the hardness of your hearts,"—seems to me the principle of many a divine enactment. It is the best expedient possible, taking into account the moral condition of the people to whom it is given. This notion—that each creature has been left free to diverge into forbidden paths,—seems to root the *sin* in our universe much deeper down; whilst the tenderness in dealing with it, seems like a prophecy that the Power who called all things into being is looking on, is intent on putting right a disordered creation, and will, in due time, find a Remedy. Perhaps the expression "the lamb" "fore ordained before" (πρὸ with Gen.) "the foundation of the world" (1 Pet. i. 20) points to this.

The appearance of the whole universe then, in the period before the existence of a creature in which moral life had become a distinct fact of consciousness, is perfectly in accord with the Theistic conception; and with the idea that the Supreme Intelligence was ordering all things with a view to raising up a race of beings great and holy enough to be adequate images of Himself.

2. From this period to the time when the highest moral standard was set up. At the outset we plunge into a controversy probably the hottest and keenest of any now raging. The point in dispute is held by some to be the key-stone of the arch in two antagonistic systems of the universe; the citadel, to surrender which by either side is equivalent to defeat along the whole line. Neither side will allow of neutrality; a suspicion of uncertainty on this point makes you an enemy. Do we hold that Man is a special creation of God, the science of Anthropology would I fear at once pronounce its anathema against us; let us venture to hint that we could conceive it possible that even here also there has been no break, then a thousand Protestant popes will straight pronounce us heretics. Under these circumstances it is not easy to preserve philosophic calm.

Moreover I cannot profess to have examined the evidence on either side with any care, and hence I know, as yet, next to nothing about it. I cannot but think too that the materials on both sides are far too scanty to allow us at present to arrive at any just decision; and I fear also that the temper of both parties is hardly that which ought to prevail in enquiries after truth[b].

[b] There is, I am sure, no department of the British Association where the barest shade of a misgiving as to its absolute impartiality can ever justly arise, but I have sometimes thought, when present at some discussions in the department of Anthropology, that some who took part were manifestly influenced by other than scientific considerations. No doubt it is hard for those who hold strong Theistic or anti-Theistic beliefs to keep these out of the scientific realm; but may I point out that if science ever yields to any such bias, in either direction, she is disgraced at once, and deserves, and will receive, the scorn of mankind. Her duty is to be as unmoved as Justice herself; to let heated advocates on both sides urge their opinions, but to

But I am not able to regard the point in question as of such overwhelming importance to either side. For myself I have absolute confidence in the Wisdom of the God Who arranged the matter. He may safely be left I think to uphold His own dignity. Whatever He did would be, of necessity, much wiser, greater and better every way than man can suggest; and until He makes His mode of action clear I am content to wait.

> "God is His own interpreter,
> And He will make it plain."

Still I can conceive that both Anthropologists, who say that the flints of the Somme valley bear clear marks of design, and moreover were existing tens of thousands of years ago,—who say that rude drawings were made by beings during the age of the Mammoth;—and, on the other hand, those upholders of Revelation who say that man was not of remote antiquity, and that primeval man was not a savage;—may both be speaking the honest, actual truth; and that they may only need a larger truth,—which perhaps a philosophical investigation of both sides would supply,—which truth would reconcile all disagreements and effect a solid scientific union[c].

dwell in a lofty region, far from the strife of men and sects; and to express only eternal truth. Let her state the truth without fear or favour: it is the duty of others to shew how that truth harmonises with other truths.

[c] On the one hand, there seems clear evidence that a highly structured community was existing in Egypt four, perhaps five, thousand years ago, so that as the historic record fades into obscurity the last thing we see is a great and complex civilization: then comes a vast break extending over tens of thousands of years—during which, as I understand it, there are no civilized remains;—and then,—on the other hand,—there are these flints and punctured reindeer bones of times far anterior.

Does it follow then—I ask it in all diffidence—that some of the quadrumana immediately preceding Man could not design? Animals undoubtedly have intelligence, dogs seem to use means to compass ends; and I see not why a chipped flint should be held to display a much higher intelligence than that displayed by the beaver in building its house. May not then these animals have been allowed to disport in this fashion, building up some of the materials needed for a higher departure,—a new creature,—and that then the Creative Power took (perhaps still by natural law) some of this finely-organised "dust of the ground" and moulded it into man, into whom, by the impartation of

As the subject shapes itself to me, a vast mass of evidence goes to shew that Evolution has been the main and central principle of the world's formation; and if we desire to complete this great generalization, and mould the whole into a logical unity, it is necessary to hold that there has been no break. But it is also a just and safe maxim of Philosophy and Science that where more detailed and exact knowledge of any matter is possessed it must, in that particular area at least, set aside any law which is only a generalization derived from broader principles. This is scarcely more than holding that the concrete must be allowed to give shape to its abstract clothing. When we come to a great scientific chasm, it is a just use of a scientific imagination to fling a swing-bridge across it, if we can see on the other side unquestioned scientific facts to which we can firmly moor it. But where we can descend that chasm somewhat, make of it a more accurate survey, and proceed all the time on the solid *terra firma* of ascertained scientific truth, I think such a vaulting through mid-air is no longer scientific. And, at present at least, we have, on this point, more minute and detailed evidence than Evolution affords us. A solid and massive argument, derived from History, Biology, the *tout ensemble* of the universe, Psychology, Philosophy, and Revelation, might be fashioned, pointing to the conclusion that, whatever degree of intelligence any pre-human creature may have possessed, there has been in the case of the human family a distinct elevation,—a line of higher departure. It is perhaps rash to speculate here; although without the chastened and reverent speculations of both men of science and theologians, it is not easy to see how the full truth can be

distinct moral life, He flashed all the incipient moral tendencies of former organizations into a luminous moral consciousness—a clear and conscious sense of right and wrong? This would set man on a higher line of departure; and would account for the sudden springing up of a great civilization,—the result of an awakened Intelligence:—it would also account for the complete absence for so long of any pre-existing civilization,—since at that time man, as we know him, had not begun to exist;—and it would allow just as much for the flints, bones, &c., of very remote ages.

reached. Our materials are as yet too scanty to shew us what was the contour of this elevation: it is, perhaps, conceivable that it might consist of adjustments too fine for any of the methods of science to detect. The "dust of the ground" out of which the Lord God formed man may have needed only a relatively slight alteration in order to suit it to man's frame; and then a fresh impulsion,—a divine *vis*, possibly only a higher energy,—may have sped man onward on a higher departure. God "breathed into his nostrils the breath of life; and man became a living soul[d]." These are vast words, covering over more than we can tell, and we may I think leave future years of scientific research to shew us how we are to interpret them.

As now the complete congruity of the Theistic conception can be shewn only by the proof that it harmonises, solidly and structurally, all that is in man's universe, it will be convenient to extend the area of our thought far beyond the works of Mr. Spencer,—beyond all Philosophy indeed;—and to comprehend, as far as may be, the whole breadth of the divine purpose as, stage by stage, it has advanced in our human world. This will bind into a unity Philosophy, History, Progress, Revelation; along with every art, science and pursuit. It will be best to consider it as advancing along two main lines:—1. Rightness and greatness of life, and—2. Deepening and refining of moral conceptions, to prepare for the setting up of the highest moral standard.

1. Rightness and greatness of life, Mr. Spencer has shewn, have been necessarily secured by binding men into societies. Everything therefore which made our race, or certain parts of it, a social or political solidarity, was a distinct step to secure these ends. Hunting, Agriculture, Commerce, rudimentary Arts and Sciences, and perhaps most of all large structured polities and empires, blending into one great unity a hundred scattered peoples, would of necessity bring about such a close solidarity. These

[d] Gen. ii. 7.

would imply men great in brain, strong in will, mighty in ambition, scourges and despots perchance, yet controlled by a Higher Power, and making the world that resulted greater and richer from their lives. As then men were bound into a society, large or small, the evils resulting to each one from injustice would cause law and justice to be established by common consent amongst them; and the larger the area over which that society extended, obviously the larger, the loftier, the more exact, the more severely and dispassionately just, must be that law which was set up. Clearly a tribunal which administered justice over a wide area, to many peoples, was no inapt image of the tribunal at which the Judge of all the earth presided; and was well calculated to lead men's thoughts up to that conception. And when once justice had become a structural principle of the chief social and political structures of the world, all the other moral virtues being necessarily contained in that justice,—nothing more than refinements of it,—in due time, as it spread out more and more through the growing enlargement of man's societies, they would also become, like it, structural parts of the world's polities. We are ante-dating somewhat, but it is impossible not to see that the Roman empire, which at least did aim to be supremely just, which, in its later days, put forth the code that is to this hour the basis of the common law of the world, was not less than the setting up in a human society of the central principle of the character of God; and was a prophecy that in due time every community should display the lineaments of that character. On the part played by Greece in the enlargement and elevation of the race, it is not easy to speak in brief. Probably however we shall not be wrong if we say that she was commissioned to enlarge and enrich man's mental nature; her poets and dramatists, her orators and statesmen, her painters, sculptors, musicians, and in fine that galaxy of intellectual glories which has made her to this day one of the lights of the world, were intended to minister to the higher wants of man's intellect. Thus Greece was employed to make large and influential the mental aspect of the Supreme

Power; Rome to put into the world the structural principle of His moral nature.

2. But it was no less important to prepare for the setting up of the highest moral standard.

As a practical result was to be achieved—the enshrining of God in man, the moulding of man into the likeness of God,—it was desirable to give some prevision of this great purpose. Accordingly we find that the first book of the Bible, after a few chapters of early history intended to integrate its record with the march of the race, proceeds to dwell upon the life, education, actions, spiritual character, of one man, the patriarch Abraham, who by believing the God of love to be what He revealed Himself to be, grew into a model of magnanimity, goodness, greatness. After some years of such education, he is proved to be ready to give up what was dearer than life; and hence in him God's purpose was nearing its climax. One man was coming up to God's moral heights. The history of the race which sprang from him fills the whole of the Old Testament; indeed the whole of the New Testament is nothing more than a provision whereby the life of faith and godlikeness on which he entered shall become the characteristic of myriads, and shall finally mark the life of every one on earth. Moses was commissioned to set up a temporary and provisional arrangement, which should tend to make the faith of Abraham influential in the wider area of a nation; and should also make provision for that which should in due time make that faith coincident with the habitable globe. Judaism has no meaning save as a foundation for Christianity. The chief work of Moses was probably to deepen moral ideas; by the institution of sacrifices, and the shedding of blood as connected with the putting away of sin, to create a sense of the vast distance between sin and the nature of God. Thus it was the setting up of a high moral standard; it told man he was to be tried by a very exalted code; and it was in consequence a prophecy that he was destined for a very exalted life. But the meaning of these sacrifices needed to be expounded;—powerful and penetrative minds,—poets, states-

men, philosophers in one—must be educated by this ritual, trained to understand at once its awful sanctities, and its unexpressed love;—men, great in all the requirements of head and heart, who looking upon it with prophetic gaze should reach near to the heart of the mystery, and should tell men that all portended some new and greater revelation, that in some way the hatred of God to sin which seemed well-nigh infinite, and the love of God to the sinner which was more mighty than the first, should one day find reconciliation. At the same time also the Spirit of God speaking through this band of inspired ones gave a prophecy of One in whom that Spirit should dwell without measure, who should set up the supreme moral standard, and should be the Model after which the whole race should finally be formed. Of no small importance also was the evidential value of those prophecies as forming a foundation for the next upward movement.

Thus the whole area of the broad current of our world's thought and life during this period, viz,—from the existence of Man, or a being of conscious moral life, to the time when, in the Person of the Lord Jesus Christ, the highest moral standard was set up,— is in fullest and deepest accord with the hypothesis of a sublime moral aim in Creation. There is nothing in the world's history up to that time which militated against it. The entire area of the knowable if it had been examined at that epoch would have afforded a secure base for Theism. One great movement has made God's intellectual conception—Truth and Beauty in all their forms—the regnant power in the world of mind. Another great movement has made the central principle of God's character—justice—the structural principle of the whole area of civilization. Another great movement has deepened moral conceptions, and has created an approximation to a moral infinite. Now I cannot but think that any philosophic strategist—any one who with the range and depth of a great philosopher combined also the qualities of a powerful military commander,—would say, as he studied attentively the disposition of the forces, and the movements that had been made, that

evidently the Power that led those three great hosts was intent on conquest,—that they were so overwhelming in calm resistless strength, and were so evidently converging upon one point, that, sooner or later, they must carry all before them. And these forces practically sum up the history of the world, at any rate up to that point. The great religions and polities of the East had not then become a distinct factor in the main current of the world's life. Possibly their influence is yet to come.

3. We now reach the stage when the final Revelation of God to man is to be made, and the supreme moral standard set up. This is the climax to which by our hypothesis the whole creation has moved. This point attained, all that will be needed will be some means whereby the race shall be slowly raised up to that standard. When this has been done, the entire Design has been carried out;—man has been moulded into the image of God. Two necessities at once suggest themselves.

1. As a practical end is to be realised, as men are to be made in conduct like God, it is necessary that the Revelation, whatever else it be, should be perfectly human, should not be supernatural[e], should be on the plane of hu-

[e] This term "supernatural," save as a synonym for "God," seems to me to be one of the terms unbelief has coined, and one that should be banished from the realm of faith and religion. It is nothing but a veil which hides and keeps back the glory which but for it would shine forth. The term can plead, I think, no Bible authority: the prophets, the Lord, the apostles knew of no supernatural realm or supernatural actions; to them all nature is full of God; and for them to think of anything supernatural would be to think of something above Deity. This is the view which surely is best. "Nature" should mean the entire totality of the operations of God; the plan in nature, the design which stretches from the first movements of the nebulæ on to the last perceptible moments in the Apocalypse of St. John. All is one realm which we ought to unify by our faith; and this unification leaves no room for anything supernatural. Rather should we regard heaven and earth as one, one stretching into the other, and not countenance terms, unsupported by inspiration, coined by unbelief, intended to put a veil over what God wishes to be brought into clear view. Moreover,—like all unbelieving terms and ways,—this error in thought leads to grave practical errors, which are at this hour the one chief cause of the conflict between Religion and Science. That conflict turns mainly on the question of miracles. Now by defining a miracle as a "supernatural" action, we assert that it is against or above the order of nature.

manity, talk in the speech of humanity, think our thoughts, be clothed in our flesh. Any One or any thing that is not this, is no practical use. One who begins in a realm above us, a realm we cannot reach, is no use in helping us to attain his stature and character. We want One who is bone of our bone, flesh of our flesh. No doubt if He is to lift us up to God,—if He is the Final Revelation of God to us,—He must be God; or else He only carries us part of the way to the Supreme: but if He is to lift at all He must also be Man, must act in man's ways, be born in man's fashion, live man's life. The Unconditioned One—the concrete realization of the philosopher's Infinite and Absolute—must be conditioned in the brain, mind, heart, body of a man, and if this be done it will be nothing less than a prophecy that Manhood shall be changed into the image of God. For if this Being unifies the two—Manhood and Godhead—so that there is no schism between them, evidently wherever the God walks, and to whatever high regions of truth or goodness He may soar, thither the Man accompanies Him, and hence Man's nature is thus proved capable of enshrining Godhead. And here we reach one of the supreme truths of creation—that Man has from the first been designed on this large scale,—

This order of nature is constant, uniform, unvarying; it is in every explored part covered over by the workings of law. In that area there is no room for a miracle: and Hume's argument against the impossibility of proving a miracle I hold on this conception to be practically unanswerable. That is the logical maze in which I fear many men of science are entangled. But now let us rise into higher regions, away from this tangled web of unbelief and error. Banish supernatural altogether—make Nature comprehend the entire Design of creation,—then miracles fall into their assigned place, they are appropriate parts of the system, most important and essential elements, and, so far from being incredible, impart, on the contrary, a higher credibility. This is to some extent the view of Mozley, Rev. J. W. Reynolds, Rev. W. J. Hall, Professor Griffith; but as no one of these had before him the unified scheme of the universe which this volume has presented, he could only say that a uniform course of events was no guarantee for its continuance. That could never help a scientific mind. The world of a man of science is made up out of law; and unless we can tell him how to integrate miracles with this law, and make a solid logical unity of the whole, miracles will remain to him indeed "supernatural," i.e. outside of his thoughts altogether. But the subject is so important that I have discussed it in the next chapter.

and that he never attains his majority, is never more than a puny and decrepit weakling, until the True Man appears, the second Adam, the Lord from heaven. Christianity is an absolutely human religion; it presents as our Exemplar a Man like ourselves[f].

2. But there is another necessity, already hinted at.

[f] It is this truth which disposes of the objections of Frederick Harrison as to an *un-human* religion. He is quite right in contending that any religion to be of use to man must be human—of course it must—but then the Founder of Christianity was a Man! Mr. Harrison forgets or ignores the central truth of the Incarnation. Positivism, like Agnosticism, is but a bubble, which only needs pricking in order to be made to collapse. The Grand-Être of Comte, the object Positivism offers for our worship, is an incoherent jumble of incongruous absurdities, an *olla podrida* of virtues and vices, hardly more decent or respectable than a religious scarecrow; an abstraction of the life of humanity in which Nero and Heliogabalus, Herod and Torquemada are mixed up with men and women of saintly virtue, with St. Bernard, and St. John, and—horrible to relate—with the Lord Himself. The conception is like nothing so much as one of those ugly Hindoo idols,—doubtless the clothing of abstractions of great truths,—where an elephant's head is mounted on the body of a woman, and some other monstrosity is employed to complete the outfit. That in our nineteenth century, in the heart of civilization, educated men can be found whose reason does not recoil in scorn from such a caricature only shews the intellectual degradation to which those are forced who will not worship the true King and Lord of men. Those who will not have Him are driven to Barabbas. No doubt Positivism has in it a great truth, even in its aspect as a religion. Comte was an agent grasped by Christ's mighty hand for making prominent a truth He wants to be known. That truth is that His nature is greater than the natures of all humanity combined; and hence that the sum total of human life—Comte's Grand-Être—is, in its main outlines, an adumbration of the greatness that is in Him. But worshipping Him we worship all that is good—and that which is abnormal and monstrous in the Grand-Être, we reject. All such religions are intended to exalt man: it is curious how they degrade man. Man is wondrously great, they say, and they pile Pelion on Ossa in trying to build up high the Babel tower of man's greatness. Man has been made wondrously great, says our humble Christianity; man's nature has been made on a scale great enough to enshrine his God;—and, in that simple statement, at once reduces to insignificance the huge edifice the false religion has reared. Man is wondrously good, they say, and they set out all the sublimities and heroisms of which man has been proved capable. Man has been designed for this honour, says Christianity; he is to go on for ever growing into the infinite goodness of Godhead! So our stately Theism rears its head far above all other conceptions, and those who dwell in its higher levels may look down upon all other religions—at any rate all nineteenth-century religions—as hardly more than *fungi* growing at its base.

If man is to be made into the likeness of God, the mould after which he is shaped must be able to reach to all the heights of God,—must be God. Only by this means can the moral infinite be reached. We may expect therefore that the Infinite One, when conditioned within our nature, will raise up that nature to an infinite moral height, will shew righteousness on the scale, with the refinement, intensity, and dimensions suited to an infinite Being. This we find to be the case. A passing glimpse of our Lord when twelve years old shews Him to be guided only by the rule of duty. He must be about His Father's business. At His baptism, when of the age of thirty, this rule of duty has enlarged into the clear conception and the firm resolve that He will leave no part of righteousness undone, but will exhaust the sum total of its requirements;—"Suffer it to be so now: for thus it becometh us to fulfil all righteousness[g]." In the Sermon on the Mount we have the moral law explained with its infinite reach of meaning; and continually through our Lord's life there is manifested this infinity in thought, word, action. But it was in His Death on the Cross that it was made most conspicuous, was brought as a distinct factor into human thought and life. There the infinite remove from sin suggested by the Sermon on the Mount is carried up to the infinite height of a Will resigned even to the Death on the Cross. There are mysteries in that Atoning work which perhaps we cannot at present understand, but we may, I think, see that when the Son was bound up with sin, was atoning for sin, He was in a sense put away, and, so to speak, repudiated by the Father. This was surely an indication that the bare shadow of sin resting on any of the Persons in the Godhead would cause a schism in that Godhead, which meant that the Father valued His character, His holiness, more than He valued His Son. Therefore the plain truth which emerges is that the distance of God's nature from sin is an infinite distance,—nothing save the Blood of Christ could measure it,—and hence that Atoning Sacrifice tells us—what every noble man now echoes in his

[g] Matt. iii. 15.

heart—that moral distinctions are infinite: it sets before us an open ascent, a way of light, which reaches to the height of the moral perfections of God. Thus we reach the supreme moral standard, and the practical truth it discloses is that finality in righteousness is impossible[h].

[h] I suppose Mr. Spencer can never have had brought before him any just and philosophical conception of the Atonement, but only those common popular statements of it which pass current in many religious circles. It is a great pity that Dr. M^cLeod Campbell's profound work although written in English is sadly in need of a translation. As far as I have gathered its import it seems to me this. Without adequate confession sin cannot be forgiven. For not to require full and satisfactory admission of the fault is to be lax in asserting moral principle. To this I suppose all finely-toned natures will assent. But, in order to satisfy the claims of truth, the inward conception or emotion when confession is made must be adequate to the terms used in making such confession. Glib or careless use of solemn words we abhor. But the terms to be used in confessing sin must be,—amongst others,—"sin." But none save a Sinless nature can have an adequate sense of the evil of sin: none therefore save a Sinless Being can make full confession of man's sin. Moreover as we require confession to be real, and to come, not from the teeth outwards, but from the depths of the spirit, so also, in certain cases, do we require the full assent of the will, in order that we may see that *the whole nature* makes the confession. Words, in grave cases, are too light to bear the whole burden that they import; they must have a greater depth and reality put into them by deeds. Now apply these principles to man's sin. Others had confessed that sin deserved death, but they knew not what they meant either by "sin" or "death." A slain lamb was a more complete confession; word was then translated into the deeper language of act. Yet none of these sacrifices could take sins away, inasmuch as they had neither moral sense nor moral merit. But when the Sinless One came, and solemnly, as the Representative of the race, lifted up His Will even unto Death, He by His sacrifice adequately confessed man's sin;—and at once the fiat went forth from heaven, "It is enough: full confession is made; man is forgiven." This spectacle of the whole burden of the sins of men resting on the race, and all the offered sacrifices having no power to raise it, until the Sinless One came, and lifted up His will unto Death, when at once the burden was lifted up, and taken away;—seems to me one of unapproachable moral sublimity, and to be a view of the Atonement which bates not one jot of God's recoil from sin, whilst, at the same time, some of the harsher and more repulsive exaggerations of this great Christian verity, are set aside. Not less beautiful is the philosophical conception of prayer and confession made through that Atonement. For as we say we are sorry for our sins, our words and thoughts are such very small vessels, and reach such a very little way towards expressing an adequate sorrow for sin; but as we link our little measures on to the infinite and adequate measure made by Christ's confession, our words are, as it were, translated into Christ's larger language; and so "for Christ's sake" we are welcomed and forgiven.

When this standard has been given, there needs only some provision by which the race shall be brought up to its requirements. The means adopted to secure this are singularly in keeping with the character of the God we have seen presented in our universe. Those means are, to try our whole race by this lofty and severe standard, and as we all, even the holiest, fall short, to bring in the whole race as guilty, as coming "short of the glory of God[i]." So to act is to put to us the question whether we dare aspire as high as God's moral character. To ask a poet whether he will be tried by the standard set by Shakspere is manifestly to ask him if he dare aspire to Shaksperian excellence. If then, on being tried by this standard—the character of God,—and coming short of it, we accept that verdict as just, and admit we have no goodness of our own, we shall be in a humble and teachable condition, and ready to welcome divine help. Now we saw that by the simple plan of fixing the eye on a more remote reward creatures had been trained to goodness. If then this principle be still followed, if Man is asked to disclaim any notion of his own righteousness, if he is asked to fix his eye on the wider and higher righteousness of God, and to open his nature to the incoming of a divine Spirit, who shall enlarge and enrich his being, and finally fill him "with all the fulness of God[k]," this will bring about that transformation into God's moral image which we have seen is the design of Creation. The Incarnation of the Eternal Son proved that man's framework could become great enough,—could be lifted high enough—to enshrine God; and so the Christ may be only the First-born amongst many brethren[l], and by the indwelling of the Spirit a believing race can be changed into His image. This being provided, there needs only a simple organization, —a Church,—which can carry on His work, declare His truth, bind men in fellowship to Him, above all receive the fulness of His life, and bring that life to bear in its conquering strength upon the race, then the result must be that the superior power in Him and in those He inspires will

[i] Rom. iii. 23. [k] Eph. iii. 19. [l] Heb. ii. 5—17.

bear down and overcome the weaker powers of those in the ranks of His foes, the solidarity in the racè will afford a sure means of reaching and subduing all in that race, and the supreme Design of creation, making man an image of God, will have been attained.

There is no space to shew how this purpose has moved onward down to our own day and is still advancing, and it is of no great moment. It goes without saying. But it is worthy of note that Mr. Spencer's Philosophy makes evident that our race will be moulded into a condition in which bearing pain for others will be the highest joy of life. Science, then, now tells us that our Lord's Kingdom will advance to this extent. And it may be that the same Science, when interpreted by a moral nature having the refinement and intensity which can be reached only by a profound belief in our Lord's Atoning Sacrifice, is seen to declare, just as clearly, that our race will not stop on the relatively low moral ranges where Mr. Spencer leaves it, but will wake up into a passion and thirst for truth, for beauty, for goodness, for God, will glory in the thought that our highest longings are but dim prophecies of a volume and duration of life that go immensely beyond them, and that the moral infinite set forth in the Atonement betokens an infinity of duration, power and blessedness, towards which we shall ever be pressing.

We have now then, in very cursory fashion, travelled over, sufficiently, the entire area of human knowledge, so far at least as it affects our present subject. It was stated at the outset of this chapter that we were now to apply the test of congruity, to see if every part of our structure harmonised with all the rest. We saw that Agnosticism had no harmony—that it was nothing more than intellectual barbarism. We have now examined Theism, and we find, I think, that here is indeed a vastness of conception which taxes our powers to grasp it as one distinct unity, but there is no structural defect or discordance, it is one mighty plan, one great and glorious whole, from the first movements of the molluscs right on to the saints majestic in the image of God.

And now we can, I think, see that the Design, which began on the vast scale indicated by the infinities of space, has, from this point, steadily moved onward, ever attaining a higher greatness; and that the outcome of the whole will be worthy of the majesty, power and goodness of the God from whom it came. And now all the elements of the conception blend into a harmony more varied and sublime. It is not easy to shew them, for, to grasp any one elemental idea, we need to dwell in that high region where poetry, philosophy, science blend into one, and at present this region is, for the most part, above us. But goodness, as we have seen, produces joy and vastness of life, clearly the calling up by means of the Cross of Christ of an infinite righteousness and an infinite intensity implies the calling up of an infinite life. An infinite life, i.e. a life which grows on from the finite towards the infinite, must have a glorious physical basis on which it rests. An infinite energy must support an infinite weight of glory. Here we reach, I think, some of the majestic terms that meet us in the Apocalypse of St. John. It is written of the band of the redeemed, "They shall see His face; and His name shall be in their foreheads. And there shall be no night there; and they need no candle, neither light of the sun; for the Lord God giveth them light: and they shall reign for ever and ever[m]." These are terms of majesty, denoting a burden of glory that the most imperial human intellect will I think be unable to grasp. What is the Face of God? Is it not brighter than the sun? Is not the sun to it hardly more than a twinkling taper? Yet the redeemed are represented as bearing unharmed that awful Vision! Evidently then the conception of physical power, of mighty endurance, this implies, is something so vast that we can hardly form even an approximation to the idea. The other clauses are on the same princely scale. No longer do those redeemed need the candles or lights of earth; they see now by intuition; and in one burning glance shoot over the whole tract of law, speeding ever towards the infinite wonders of God. In that majesty

[m] Rev. xxii. 4, 5.

of make and mould they reign for ever and ever. The cathedral of creation rings for aye with the mighty anthem,—"Thou wast slain and hast redeemed us to God by Thy blood, and hast made us unto our God kings and priests."

This is the scale on which our universe and we in special have been created. Earth only finds its meaning in Eternity. We are fashioned not for time, for its small measures and purposes, but for a duration which no thought can limit. The last glimpse we catch of our world-history is of the hierarchy of saints and angels, and the last sound is the song that shall always ascend. And compared with this glory all the sorrow and woe and sin of our world will be found to be but a passing summer cloud; all the minor notes of the great oratorio only an increase of its sweetness and passion and joy.

Meanwhile the duty of each one of us is to make his election for that blessed life. Let him only lift up heart and will, and link his fortunes and destiny with God's; so doing he becomes a child of light, an heir of glory, and joins the conquerors on their way to the heavenly home.

CHAPTER VII.

THE UNION OF RELIGION AND SCIENCE NOW REACHED: ITS SCIENTIFIC ASPECT.

AS this volume has attempted to unify Religion and Science, on a somewhat wider basis, and I think with a higher logical completeness, than the scheme of unification put forward by Mr. Spencer, it seems desirable to shew that the union here proposed is complete and permanent. It must have appeared throughout that our whole argument has rested only on the foundations of Science and Philosophy, and has been built up according to their strictest canons; and that by this means alone we have reached all the structural principles, at least, of a deep and far-extending Theism. It proceeds only on the basis of the truth, on the whole area of the Knowable, and may therefore justly claim the support of every one who loves the truth. Believing then that there are many students of science who are honest and unbiassed lovers of and seekers after truth, who yet unhappily are not earnest Theists, and who lose in consequence all that joyous restfulness, that large outlook, and, above all, that glowing moral enthusiasm, which a great religious faith alone can bring, I venture to set out where it seems to me their hindrance lies.

It will, I think, have been felt by the reader all through this volume that we were travelling over large, and in some cases over enormous, areas. It is not possible to deal with a Philosophy which unifies the universe without doing this. The propositions may be simply expressed,—there is no need to mystify, greatness and simplicity are very generally united,—but those propositions are, and must be, in the nature of the case, amongst the greatest that the human mind can grasp. And as we have now taken up Mr. Spencer's Philosophy *en bloc*, have lifted it bodily, and put it to form a part of the setting of a larger thought, —a truer and greater Philosophy of the universe, I think

it must be allowed that the Theistic conception, of which it forms only a part, may justly claim to stand in point of intellectual greatness above any other rival.

The same truth meets us if we consider that we have unified Religion and Science. From the too palpable fact that they need unifying, we may infer that at present there is a chasm between them. Religion as it is taught by its upholders, Science as it is set forth by its adherents, are at this day dwelling in opposite, and in some cases in hostile, camps; and are speaking in discordant tones. We can say they agree if we are content with the poor truism that Religion is one mode of God's thought, and Science is another mode of the same thought; and that these cannot be discordant. Of course they cannot; but that has no relevance to our nineteenth century life. Religion as it is taught in the various Christian communities, and Science as it is upheld on the platform of the British Association, are by no means in accord: there is a neutral realm at present separating them, and in this area polite interchanges take place, but this cannot permanently continue; and as the two hosts come closer together, the antagonism must increase, and become more and more apparent. To end, if it be possible, this conflict, and bring about a complete unity, has been the object of the present volume. It has striven to take the whole truth which each one holds, and to bind this into a unity; to be content with no patched-up reconciliation, soon again to break out into open war, but to effect a true, honorable and eternal alliance. Obviously then, the truth which can thus unify what many say are logical contradictories, must be greater than is held by either of the two separately. We dissolve the contradictions by blending both into a larger generalization: this generalization must be greater than that held by either of the others. The truth taught by religious men is not great enough; the truth taught by scientific men is not great enough; blend the two into one you make a larger unity, in which the full-orbed truth of both can dwell.

This is indeed the office of divine Philosophy. Her true

function is to be a peace-maker. Appointed by the Creator to dwell on the highest ranges of mortal thought, seeing all realms of human knowledge, including the whole of the fair land of Science, lying extended at her feet, Philosophy is necessarily conversant with wider areas than those with which others deal, her glance sweeps over the territory in which they work, and travels on every side far beyond it, she sees how it is related to adjoining lands, and what is the fair proportion it occupies compared with the sum total of human knowledge. Hence she cannot fail to unify, to harmonise discordances, to uphold one supreme rule for the whole. She is the Queen of many lands; her vision and rule extend over divers countries, and it is her office to keep each country within its proper bounds, and suffer no aggression of one on another. To change the figure, Philosophy dwells in a realm above the hoarse clamours and cries of conflicting sects, these die away before they reach her; and her aim at least is to attain that large, calm judgment which shall express the eternal truth.

Nothing but such a philosophy can in my judgment unify Religion and Science. And now may I venture to point out both to men of science and men of religion what this impartial Philosophy would surely say, how she would tell both that both are in fault, that neither is great enough, and that if they wish to enter into and remain in permanent union, both must be truer, humbler, more human, of greater mental grasp, of higher moral tone[a]. This chapter is intended chiefly for men of science; the next for men of religion. It will be understood that what is said is meant only or mainly for those who reject the Theistic hypothesis.

Such seem to me not unfrequently to need reminding that they are *men*, and that they have, or ought to have, the full nature proper to man. Their scientific powers ought to be only an aspect of one part of their being,—the room or sphere in which they work,—and they ought

[a] Sir James Paget, in his admirable pamphlet, "Theology and Science" (Rivingtons), speaks throughout in much the same tones.

to have an outlook over, and maintain relations with, the other spheres of man's industry. They ought not to make their science into a prison out of which they never come; they should not be held evermore in the fetters of material law, but should give free and just play to all the other powers of their being. Science, although very great and noble, does not exhaust man's universe; and any one who will breathe only in its realm simply makes himself up into a scientific machine grinding out results; and he abdicates his true place and office as a man. But this ought not to be. Men of science should be concerned in everything that concerns humanity. They should be abreast of, and in sympathy with, the full-orbed life of the race. The life which is in us to-day has come down from thousands of years; it has been enriched by contributions from as many sources; it has grown great, deep, strong, complex, manifold; and it represents not less than the gathered intelligence and force of the ages. Men of science should embody this full-orbed life. Their science should make them greater, not smaller; its strength and majesty should be imparted to their whole nature, and should build them up in mind and heart and will, in the moral and spiritual part, on a grander scale. They should grasp their science with a high intelligence, and co-ordinate it with the sum total of man's needs. What is that Science for, what is its use in the great scheme of human development? Surely it is not, and cannot be, an end in itself: merely *to know* cannot be the be-all and end-all of human life. Rather is it not meant for high and noble purposes, to minister to man's material comfort, to enable him to carry out the primal command to subdue the earth; and to fashion his intellectual powers, to build up in him a palace of truth in stately and well-proportioned grace? That is to say, *Science is only the scaffolding* on which *Man* is to grow and be trained.

To be faithful to this task, Science must join hands with all other things that minister to man's need. She must be the friend and ally of all that helps forward the progress of the race. She cannot cut herself off from all the other

great modes in which man's energy finds employ. She must retain living relations with anything and everything that covers over the Knowable. With all the Arts, Poetry, Painting, Sculpture, Music, with Commerce, Politics, Economics, Legislation, Science must maintain a constant intercourse. No doubt she will steadily advance and conquer each one of these; and will make each one greater and truer from the conquest. But she cannot, without sinking into the senility of age, and abdicating her truest function, she cannot cut herself off from this whole breadth of human life, this vast region of human culture. Men of science who wish to be scientific, who would take a broad and exalted view of their functions, must not be scientific ascetics or anchorites, shutting themselves up in scientific cells, intent merely on the scientific salvation of their own soul, scientific Simeon Stylites, who look on the whole world from an elevated, but from a very contracted, point of view [b].

I can fancy men of science asking in impatience;—When do we ever shew narrowness such as this? They repudiate it then, and admit the duty and necessity of Science to integrate itself with the whole area of man's development. So be it. Whatever truth then all these other modes of man's energy declare they need and must have in order to justify their existence, Science must be prepared to grant. Whatever can be shewn to be a structural element in Homer and Plato, in Virgil and Dante, in Raphael and Michael Angelo, in Handel and Mozart, in Milton and Shakspere, Science must be willing to concede, and to integrate with her system of things [c]. We cannot consent to part with these,—to choose between them and Science would be as hard as the choice sug-

[b] "A philosophy restricted to one's own experience could be nothing better than a volume of travels by Simeon Stylites."—"Faith: the Life-root of Science," &c., p. 69.

[c] The foremost sons of science can see this: "The world embraces not only a Newton, but a Shakspere,—not only a Boyle, but a Raphael,—not only a Kant, but a Beethoven,—not only a Darwin, but a Carlyle. Not in each of these, but in all is human nature whole."—Tyndall, Belfast Address, 1st Edit., p. 64.

gested by Carlyle, between Shakspere and our Indian empire,—and we really could not say which we should hold most precious. But Science cannot be such a barbarian as to refuse either.

But beyond question the existence of Mind, and of a Moral element in man, is needed to unify Science itself, and make its conclusions a certain and logical whole; and is needed as much, and no more, by all the other modes of man's mental development. We saw that this proposition was a necessary structural truth of every department of our intellectual life. We saw that it was as essential, as the foundation of our every mental structure, as the ground on which we walk is essential to support our bodies, and our material structures. We saw the hideous ruin and confusion that ran in one devastating crash through the whole of man's universe if this were denied; and we saw that it led to absolute nescience, absolute uncertainty, to a reign of universal stagnation and death.

Men of science then who are not scientific anchorites, living only in their own realm, maintaining no brotherly relations with the rest of the world, must not be Materialists. To them Mind must be as distinct an entity as Matter. Mind is as necessary to their science as Matter. Mind gives the structural principles they use, the canons by which they are ruled, the processes they invent, the facts on which they build. They can no more explain their methods without Mind than they can see their experiments without eyes. For a man of science to ridicule the existence of Mind is just of a piece with a mechanic ridiculing the existence of hands. And although the moral element in man is not so distinctly capable of demonstration, yet surely any man, scientific or otherwise, who can see no moral demerit in lying and murder may justly be deemed a monstrosity.

Mind and Morality then are existing in our world. They are to be found in every human being, and are especially conspicuous in all the greatest of our race. The entire area of these then must be scientifically accounted

for. Any man of science who wishes to integrate his science with the universe, who wishes, occasionally at least, to come out of his own relatively small realm, and to traverse and take some interest in adjoining territory, must demand whence came all that Mind and Morality, must require a scientific explanation.

Such an explanation, to be scientific, must supply an adequate equivalent for all this Mind and Morality; which equivalent must be qualitative and quantitative.

It must be qualitative. Science would regard as a fable the statement that, at present, carbon can be changed into nitrogen. Each one of the simple elements moves within its own sphere, and cannot be changed into some other element. But the chasm between Matter and Mind is far greater than that between carbon and nitrogen. Mind, then, must have an equivalent in pre-existing Mind. Science must carry on her own processes, and must find some hypothesis which explains this pre-existing Mind. For the same reason an equivalent for the Morality must be found in a pre-existing Morality.

It must also be quantitative. Twenty atoms of nitrogen on one side of a chemical equation are not scientifically accounted for by ten atoms on the other side. Science requires that the full twenty shall be shewn. The Conservation of Energy is one of her most sacred maxims. A man of science, then, to be scientific, must present an hypothesis which gives an equivalent in a pre-existing Mind and Morality for all Mind and Morality that our race has ever displayed.

It need scarcely be said that the only hypothesis yet presented which gives us this scientific equivalent is the hypothesis of Theism. Find the explanation in one article of the Apostles' creed, "God the Father Almighty, Maker of heaven and earth," the matter receives a scientific treatment: otherwise it remains an unexplained mystery.

Those then who reject the Theistic conception seem to me to sin against one or both of these two great canons. Either they are un-human, living in their own realm only,

not great and noble enough to be in full and deep sympathy with the race of which they form a part; or they are unscientific, content only with a proximate explanation, destitute of deep and far-reaching conceptions, and never caring to root their science firmly in the system of the universe. This may suit them, but it will not suit minds of greater power and grasp. Science differs from the knowledge of the unlearned in that its facts are massed into laws. A man of science is not content with a fact, he must resolve it into a law. He would not regard the mere knowledge of the fact as scientific knowledge. Before it becomes scientific it must be formulated. But a larger science, the science of sciences—called Philosophy—in similar fashion is not satisfied with the bundle of formulated facts which each science contributes, but insists that these also shall be massed into law. To this larger and truer science, each science *en bloc* is only what the facts of the unlearned are to common science. All the sciences must be classified and formulated, and reduced to one all-comprehending law, before a scientific explanation of the universe is reached. It is this which calls up the mental strength of a powerful philosopher, in that he must take whole sciences, which he must handle as single stones, and build into the one arch of thought that forms the intellectual framework of the universe. Now the only arch of thought yet presented which unifies the universe is the conception of Theism. If then men of science will be great enough to integrate their science with the universe, and will demand a scientific explanation of all things, they will find, I think, that they reach and rest in the Theistic conception.

Accepting the hypothesis of Theism, seeming discordances and contradictions disappear. As we just said, that is the arch of thought in which all things receive their just setting; and hence what are almost insuperable difficulties from a narrower point of view are, when looked at in their true proportions, only higher harmonies and fresh evidences of truth.

Let us take the question of Miracles. This will afford

a good example of the way in which Philosophy acts as a unifier and peace-maker.

Men of science say, and with truth, that in the whole of the vast areas over which their analysis extends they can find no evidence of disturbance. That analysis is wondrously delicate and far-reaching. It is the best image yet given us of the Omniscience of God. As an example,—by no means the most remarkable,—it detected the existence of the planet Neptune before that planet actually swam into sight. Science has prevision; its eyes are growing keener, its energies more exalted; and it may, one day, send a burning glance over the whole tract of law, and with a trace of the prerogative of the Most High God, see the future existent in the present. And whenever Science makes such forecasts on the supposition that there is no break in the operations of nature she always finds them verified. The generalization is therefore true and just,—and one men of science must uphold,—that Science knows of no breaks,—that all things move to the music of law.

Hence a scientific mind finds it very hard to think that breaks ever have occurred. It receives, and must receive, the assertion of a miracle with a considerable amount of suspicion. The acceptance of such a proposition would almost rive a scientific intelligence in twain. Sir James Paget, in the pamphlet already referred to, admits that "many who hold by both science and theology are conscious that they do not maintain the truths of both on similar grounds [d]."

Now this may do as a temporary and provisional arrangement, intended to tide over a period of transition; but I am not able to regard it as satisfactory for any permanent foundation. For myself I say plainly that I do not accept, and cannot accept, any religious truth which does not commend itself to my reason, (putting aside, as already stated, the whole realm of the Unconditioned,—the Infinite and Absolute,—in which of necessity the mystery of the sacred Trinity is contained). And I think

[d] "Theology and Science," 2nd Edit., p. 4.

there ought to be no divorce between Reason and Faith. But now Hume's argument against miracles comes in; and from the scientific standpoint it seems to me practically unanswerable. That argument is that a well-nigh universal experience proves that the course of nature is uniform,—i.e. contradicts the possibility of miracle;—and as no testimony by which miracles can be substantiated can equal in breadth, volume, massiveness, this almost uniform experience against them, the consequence is that miracles can never be proved to have taken place.

Against this, various writers—Paley, Mozley, Rev. J. W. Reynolds, Rev. W. J. Hall, Professor Griffith, and others,—urge that no amount of antecedences and sequences can prove that they will necessarily continue; and they give various illustrations,—Babbage's Calculator, a four years clock, &c.—designed to shew that any mechanism, (like the universe), may go on for a very long time in one uniform fashion, and then may shew a sudden break; may again continue uniform, and then may make a further leap. The uniformity, they urge, answers to natural law; the leap, to a miracle.

Now all this is very good, and as a Theist, I see its force and beauty; but they must pardon me if I say it is not an argument which would commend itself to a purely scientific mind. They unconsciously supply an assumption which the pure scientific mind denies; without this assumption it ceases to bring conviction, and may be refused examination.

A strong man of science, say Professor Huxley, would reply to it somewhat in this fashion:—

"I take my stand on science,—which is the surest foundation the universe affords me,—and I accept any truths, and none others, to which this science leads me. I hold that all truth is a unity, and that, from my present scientific foundation, I can get to every truth that it is of importance for me to know. That makes up the world in which I live. Now in this realm I find only uniformity; and I know nothing of breaks. The mechanism whose workings I examine goes on *without any such leaps* as those which you picture; and, as I find none, *I can only interpret all*

things in the terms of my own intelligence, and *infer that such breaks do not exist.* When you tell me they have existed, I can only say that they never come within my ken; and as to accept them would demand a complete rupture of my intelligence, you must excuse me if I reject them."

That reasoning I think sweeps away the argument derived from Babbage's Calculator, and shews that it is of no practical value to a scientific mind.

But here Philosophy comes in, and acts as a reconciler, integrating the logical position of such a man of science with the theologian's position when he asserts miracles. We just saw that a scientific explanation of the universe forces us to Theism. We have seen, throughout the closing chapters of this volume, that the purpose running through the universe is to raise up a race of Intelligences who shall be like God. We saw that this moral design was lying behind every law of nature, which law had been called up to make it possible, which law was nothing more than its intellectual and physical clothing. All then that is necessary for this design forms a part of it, and is *really the law of nature.* But Miracles are a part of this design, a part which could not be left out. The central miracle—the Incarnation, Miracles, Death, Resurrection, of the Eternal Son of God—is the one great fact around which all creation centres, for which all creation has been contrived. Miracles are therefore *no breaks in the operations of nature, they are a part of nature's uniformity*, they are as much a part of the designed law of the universe as any of the laws of chemistry, they are as natural, and they follow strict antecedence and sequence, just as much as any of the operations of the law of gravitation. They differ from that which comes before and goes after because they are intended to differ; they are designed scenes in the drama of the universe; they are the introduction of higher elements; fresh lines of departure meant to conduct to nobler levels. Take the whole conception, they become instinct with meaning, beauty, power; they are creatures of light and of God sent to train us for the skies. They are no more breaks in nature's great system than windows are

breaks in a cathedral wall; they are only openings to let the glory through [e].

As the matter is of great importance to scientific minds, perhaps an illustration will be pardoned. A man of science gives a lecture. He continues for an hour explaining his principles. This hour is spent in quiet, uniform, intelligent talk upon his subject. At the end of the hour,—or some time during its course,—there comes a brilliant, striking experiment. This at once flashes into the minds of his audience, with a vividness and force of conviction far beyond the power of mere words, all that he had been saying. He had been slowly leading them from point to point, convincing their reason that what he said was true, and would be found to be true, but then, in the illustration, he made his thought flash out before them in living

[e] "Miracles on earth may be nature in heaven."—"The Mystery of Miracles," 2nd Edit., p. 68. I find it exceedingly difficult to shew in brief where I concur with, and where I differ from, the five writers to whom I have alluded. There is so much that is true, beautiful and suggestive in each one of them, that I turn with great pain to any defects. My chief objection would I think be that all of them make assumptions which a scientific man would not grant. All *assume*, and do not scientifically prove, that there *is* a larger order of the universe in which miracles find their just place. That is a conception easy and natural to a Theist, especially to a theologian: it is by no means easy to a scientific mind, pure and simple. Science can find no such larger order. To ask science to admit it, is to ask science to be unscientific. It is only Philosophy which can bring it into view. Rev. W. J. Hall seems to see most clearly that only on the Theistic hypothesis can miracles be rendered credible, but his arguments do not scientifically prove this hypothesis. Rev. J. W. Reynolds, (and sometimes Professor Griffith,) appear to speak as if the wonders of science,—ocean telegraphy and such like,—were on a par with the miracles of Revelation. To this I must demur. The wonders of science differ from miracles, *sui generis:* the first are of the earth, earthy; they are towers of Babel built up very high, but resting solidly on our world: the others—miracles—are creatures of God, let down from above, only to be explained by reference to the eternal order of things. Set up Theism and the Theistic universe, there may be hung up from that roof the miracles, as burning cressets to light us to God; but if we attempt to reach them from earth, at any rate at present, we shall find our ladder is miles too short. Yet whilst I venture to differ from these writers, I cannot but be sensible of the exceeding beauty, sweetness, fragrance of the thought of Rev. J. W. Reynolds in particular, so richly is it charged with an element from above. That sentence, for example, "Miracles on earth may be nature in heaven,"—what a vista of thought does it not open up which hours of meditation could not fully explore.

beauty, clothed it in a material body, gave to the abstract the vividness and force of the concrete. Now that illustration involved no departure from his original design. It simply came in the line of his thought and purpose, just as much as every word of his manuscript, every inflection of his voice. It differed no doubt from his conversation, but it did so, because it was meant to differ; it was the one great thought he wanted to drive home; and hence he was not content with mere words to set it forth, but he would also employ the more telling language of acts.

A miracle it seems to me is such an *illustration:* it is a part of the original design, and it stands on just the same basis as all the laws of nature. God talked to men for the most part in ordinary natural tones, by the common, daily occurrences of life, by sending "rain from heaven, and fruitful seasons, filling our hearts with food and gladness[f]." In this way He proved to them what He was like. But occasionally, when He had some new or specially exalted truth to communicate to dulled moral perceptions, He made that truth flash out in some great act of unmistakeable significance. And when the last Revelation was to be made, when all former hints and glimpses of His Being were to be surpassed, and the simple Reality presented before men, then there came the central crowning Illustration, the Light of the world, the Word made flesh, "the only-begotten of the Father, full of grace and truth."

Perhaps we might carry on this image a little farther. Suppose then, one present at a scientific lecture, where an illustration of great beauty, blending many complicated truths into one idea, is given. On returning home that hearer speaks with great animation of the brilliancy of the experiment; and of the various parts of the apparatus employed. But some one well-instructed asks:—"But what was the *thought* which ran from one end to the other of that experiment; did you link all its parts into one, and lay hold of the idea that was underlying all?" If then there is the admission that the idea was not grasped,

[f] Acts xiv. 17.

I fear the lecturer, if he knew, would hold that, for one of his audience at least, he had provided an exhibition of pretty things perchance, but that the one notion for which he had devised that illustration he had evidently not driven home. Now that hearer seems to me justly to represent any one, no matter how exalted his powers, who does not grasp the divine idea in the universe. He comprehends only a part or parts of the vast plan: the one unifying idea,—the one central and all-important thought,—he does not lay hold of. That is the philosophical justification of the statements of theologians, that divine truth is greater and more important than all other truth. It is the generalization which contains and unifies all other truth; and hence may justly claim superiority.

If any man of science needs a standing miracle, which, with suited instruments, he can verify, I think he may find it in the Christ of the Gospels. The Being there drawn is *sinless*. Now it would be no difficult task for a high moral nature to convict of sin every one of the fourteen hundred millions now on the earth; and the same charge could be brought home to every character of fiction or history. Here then is something unique—a Sinless Man. To my mind that is a proof of Godhead.

Accepting Christ as God the miracles surrounding Him become easy of belief. A sinless Man introduces a factor never before known. His Resurrection from the dead, may be, probably was, *nothing more than a natural consequence of His sinlessness*. We can see that sin and disease are closely allied, that each may cause the other. A sinful soul may bring disease; a diseased body may generate sin. One in whom there is no sin may supply nothing that Death can hold; and even when a violent sundering of spirit and body—as in crucifixion—drives the two apart for a time, yet the sinless spirit may have power to assert its supremacy, and to burst the bonds of death "because it was not possible that He should be holden of it[g]." This view of the matter seems to me to make the Resurrection scientifically credible: the Mi-

[g] Acts ii. 24.

racle was wrought in virtue of a dynamical force which is the natural prerogative of a sinless Man. David in the Psalms, St. Paul in his Epistles, seem to present this aspect as the truth[h].

In conclusion let me briefly point out how much those men of science lose who are not devout and earnest Theists.

Any scientific man who does not hold the existence of Mind,—who asserts that Mind is only an outgrowth of Matter,—has a great structural falsity deeply imbedded in his whole mental framework. That is as great an error, and it makes his whole mental system as untrue, as the holding and teaching a false system of the universe, say the Ptolemaic Astronomy, would place in a false light everything he might say. Until cardinal and structural virtues exist in the intellect that intellect cannot come to a right conclusion. The Persistence of Mental Force forbids that a falsity should be a central principle of a man's mental structure, and not send errors and perturbations through every part of his being. The *instruments* contrived by men of science are so delicate that even a breath will make them give an untrue result, and can it possibly be thought that the Mind which contrives them will not be vitiated, if an untrue bias is acting upon it? Anything untrue in thought is a scientific sin, and a sin of the first magnitude: it is introducing an element of disturbance which must impair and finally destroy the intellect. Only second to this,—slower, perhaps, in its influence but more deadly and far-reaching in its results,—is the denial to man of a Moral nature. Perhaps the main evil which that causes is something that transcends time, something whose full and fatal effect this life is not great enough to make manifest. Some departures, and these are the greatest, only shew their full results when an infinite measuring-line is applied to them. Still such a departure from truth must bring serious errors even in this life. Probably the penalty pronounced is this;—that such a man of science shall only do common work and

[h] Ps. xvi. 8—10; Acts ii. 24; Rom. viii. 11.

make ordinary discoveries,—he shall be incapable of moving on the higher levels and wider ranges of scientific research, and shall have none of those powers which are needed for work of the greatest and most enduring character.

But setting aside these graver errors there is also a serious loss where there is only lacking a firm, clear faith in the great Christian verities.

No one with any pretensions to culture,—to acquaintance with the main thoughts and forces of the world,—can question that men inspired and upheld by a great religious faith have been, as yet, the main fashioners of the human world. We need not set aside the influence exerted by warriors, discoverers, statesmen, poets: all without doubt have contributed to the slow elevation of the race; but it still remains true that religion and religious men have made by far the deepest and most enduring impressions. Mr. Spencer shews how this must be the case. For religious men,—men of commanding religious earnestness,—have been those who have made most distinct and influential the moral idea. Others have sharpened intellect, they have sent their strength along the ways of goodness. And we have seen that goodness represents the broadest and deepest channel in our nature. Hence the men of most commanding goodness—the men in whom that goodness rose into a high religious faith —have had a breadth, a strength, a resolution, which none others have so fully reached.

Religion, then, makes the highest type of man. It alone shews man in his palmy greatness, in his conquering, kingly strength. No doubt, along with such religion, other things must be possessed. The reason must not be left to sleep, and a dull stagnation be put in the place of a high religious intelligence. But where the intellect is duly exercised,—where Reason tests every statement with scientific caution,—it remains true that, in such a man, a great and commanding religious faith brings a breadth and grandeur of nature which no other educational factor can ever call up. It must be so in the nature of the case. That religious faith implies a reception of the power of

God, implies the indwelling of God, implies the growth in heart, mind, will, towards the likeness and stature of God. And as the propositions which set God forth are the greatest the mind of man can grasp, it cannot but be that a mind which thus enshrines God, and is ever struggling to grasp a larger measure of the fulness of God, will grow up into a strength and vastness that one not possessed by such a faith will aim after in vain.

Other things being equal, the man possessed and inspired by the Theistic belief will be the greatest man. He will have a vigour and range of intellect, a largeness of conception, a force of will, which others not so inspired will either not attain at all, or will only attain by the expenditure of more exertion than he needs to employ. His faith will be ever making him greater, ever bearing him up to higher peaks of thought, ever bringing a more piercing vision, ever conducting him to larger areas. And as he turns to look on or examine any science, he will see by instinct all its broader and greater truths; he will discern the more structural matters; where others see disorder and chaos he will detect unity and law: spaces none others can traverse he will unify; laws too great for others to grasp are the very things that will rivet his eye. In other words that man of science who is most possessed by a great religious faith, will be the one who can with least difficulty reach Science's greatest generalizations, and perform those services to men which win their enduring veneration.

Science is steadily growing greater; already a large amount of specialization prevails; and human intellects are not capacious enough to take in all its truths. Yet it is coming into broader spaces, where largeness of intellect will be more needed than ever. In the closing words of Professor Huxley's Lecture on Palæontology at the York Meeting of the British Association, we were told that that Science had now reached such a completeness that "just as Steno and as Cuvier were enabled from their knowledge of the empirical laws of co-existence of the parts of animals to conclude from a part to the whole,

so the knowledge of the law of succession of forms" was now empowering "their successors to conclude from one or two terms of such a succession, to the whole series, and thus to divine the existence of forms of life, of which, perhaps, no trace remains, at epochs of inconceivable remoteness in the past[i]."

This points to a vast enlargement in future in scientific generalizations; and whilst it makes the attack on our remaining ignorance a more hopeful and practicable task, it also shews that intellects of a calibre hardly before known will be more and more needed. Here Science will again be finding her want of Philosophy[k]; and a Theistic Philosophy only will bring her the needed breadth and grasp. Men of science must dwell in the large spaces made by God's thoughts, if they wish to have the mind that can comprehend the wonders of God's universe. As the Divine Spirit enters them, a divine energy and largeness will possess them, and in the power thus given they shall be adequate for every task. In the words of the soaring Isaiah, "They that wait upon the Lord shall renew their strength, they shall mount up on wings as eagles, they shall run and not be weary, and walk and not faint."

It is a serious loss to the whole race that there should be any want of cordiality between Religion and Science. They are natural allies, and ought to work hand in hand. They have need of each other. Science can point out wise ways of working, but, without the enthusiasm Religion can bring, Science can find no motive adequate to move men. Religion has enthusiasm, but, divorced from Science, it goes along low and unworthy channels. Severed, each one is relatively weak to accomplish practical good; united, they would bear the world before them.

[i] "Rise and Progress of Palæontology." "Nature," vol. xxiv. p. 455.

[k] It is much to be regretted that neither Psychology nor Philosophy has, as yet, been admitted to a place in the British Association. It is hard to see any justice in such exclusion. Anthropology is welcomed with all honours, although the very greatest truth it can reach is that man has grown up from the lower animals without a break, but Philosophy which deals with truths of the highest generality, compass and importance, is denied admission.

CHAPTER VIII.

THE UNION OF RELIGION AND SCIENCE NOW REACHED: ITS RELIGIOUS ASPECT.

WE have now to endeavour to shew that the union here advocated between Religion and Science is one that may safely be accepted on the side of Religion; and that such a union is eminently desirable.

No one who is wise will I imagine contend that there is a distinct chasm between Reason and Faith, and that one region does not merge into the other. Surely we cannot conceive any impassable barrier between them. It is the same intellect which uses its powers in the methods of reasoning in regard to earthly matters, and applies those same powers to lay hold of the things revealed to Faith. The very fact that we have a divine Revelation made to us implies that divine modes of thought and our modes of thought are all of a piece; for if not, a divine Revelation would be talking to us in a language we could not understand, and a fresh revelation would be needed to interpret the first into symbols comprehensible by us. All systematic Theology, all attempts to justify God's ways to men, all Analogies between Nature and Revelation, every defence of Christian truth, necessarily take for granted, as an underlying principle, that man's reason, rightly guided, can understand divine revelation,—in other words, that Reason and Faith have no barrier between them. This is a simple principle, but important as a foundation: far-reaching consequences at once result from it.

For if Reason and Faith, Science and Religion, are, in themselves, one undivided logical whole, it is clear if we do not make them agree there must be some fault or defect in us. They ought not to appear discordant. In so far as they do so appear, to that degree they tell us all,—men of science, men of religion, alike—that there are some

truths we have not yet grasped,—that our system of the universe is not large enough to meet the actual facts of the case,—and that until we become greater, and fashion all our ideas on a more comprehensive plan, such a unity will be impossible. As before, a far-reaching Philosophy must be the unifying element; but as then it was necessary to tell Science that she must accept the Christian miracles, and integrate them with her system of things, so it seems to me just as necessary to tell men of Religion that they, on their part, must accept Evolution, and regard that as the mode in which the Creative Power fashioned the universe.

Union between the two will, I think, never be brought about save on such a basis. No doubt there are some men of science who still reject Evolution, but they form only a small and a decreasing minority, and the great body of scientific authority is enthusiastically in its favour. Science may therefore be regarded as declaring that it is one of her settled generalizations,—one of the highest expressions of accurate and far-extending reason that she can reach,—and that it must be accepted as her statement of the truth. Those who are best acquainted with scientific opinions declare that it has ceased to be a matter of controversy; it is a generalization which has passed into the category of admitted scientific principles. Thus Professor Huxley states, in "Science and Culture:"—"So far as the animal Kingdom is concerned, Evolution is no longer a speculation, but a statement of historical fact. It takes its place alongside of those accepted truths which must be reckoned with by philosophers of all schools[a]."

If, therefore, men of Religion wish the unity or reconciliation between Religion and Science to be more than mere talk,—if they wish it to have a solid basis of fact,—they must be prepared to accept Evolution, as the mode in which Creation has been accomplished.

This volume has I trust tended to shew that there is nothing godless, infidel, or materialistic about such a notion, but that, on the contrary, the conception is an inexplicable

[a] "Science and Culture," p. 324.

chaos,—confusion worse confounded,—save on the assumption that a Moral Designer originated all things, and that every law in the universe points conclusively to a high moral aim. To my mind, the scheme of Creation which Evolution puts before us is inconceivably more lofty and more worthy of God than our former ideas of His working; it reveals an extent and magnificence of plan we had never before dreamed of; it teaches us many lessons which, if they exist in the Sacred Book, we had not learned; it tells us more plainly than anything else the scale on which we have been planned, brings us out into the large spaces and times of God's Being, and shews us the dimensions of the framework in which all thought about Him must be set. "The Teleological aspect of Evolution" shewed, I think, that every structural principle of the Evolution hypothesis is evidently the clothing of a high moral design. Indeed Evolution seems to me the "Via Sacra" of the universe; the road along which the Blessed One walked forth, first in Creative power and majesty, then in loving providential care, then in higher wisdom and goodness, foreshadowing what He was about to do, and finally along this path reached His Cross, and there consummated that sacrifice by which alone His infinite love was revealed. And I am not able to regard any part of this way as common or unclean. It ought I think to be regarded as sacred as the slopes of Olivet; a Holy Presence has consecrated every spot[b].

[b] It is very painful to observe the ridicule which some theologians cast upon this hypothesis. Their grasp and cogency in argument is invariably in inverse ratio to the force of their denunciations. Considering that CHARLES DARWIN has been laid to his rest in Westminster Abbey, amidst the profound homage of the civilized world, one would have thought that that fact alone would have made evident that the generalization he brought into clear prominence cannot be the absurd and ridiculous matter which some too frequently represent it to be. There are many offenders of this stamp, but I do not care to let these pages be dishonoured by their names. Amongst them—I think the very worst—is a clergyman of our English Church. Let me commend to him this sentence which he reads in one of the Lessons:—"The powers that be are ordained of God." Now if he has a trace of the philosophical power needed to deal with Darwinism, he will see that a great scientific generalization which establishes itself over a wide area, and bows

The value of the hypothesis in strengthening our evidences for Theism seems to me very great. For, in the nature of the case, a generalization which expresses in one Law the whole of nature's operations,—which covers over the whole area of the Knowable,—must supply a more unyielding foundation for an enduring argument than any smaller area of thought. The whole universe contains not an inch of ground on which a lever can be planted to assail it. Building then on the whole area of the Knowable, if we set up, as I think we have been careful to do, our entire edifice according to strict scientific canons, it seems to me it must stand impregnable to the end of time. Resting on all knowledge, built according to the most certain principles of all science, it must surely be as eternal as truth herself.

If those who object to Evolution would formulate clearly to themselves any logical idea of Creation, it would not surprise me to find that they really hold the very opinion they deny.

They do not, I imagine, profess to believe that the "days" of Genesis are literal periods of twenty-four hours. Doubtless they hold them to be "times"—"days of God"—stretching over myriads of our years. Let us take then the work done on one of these "days," and see how it shapes itself to our thought.

Let us select the fifth "day." On that day God said "Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth in the open firmament of heaven[c]." From which we may

men of the first scientific reputation in reverence, is at least as much one of the powers that be,—as much ordained of God,—as was the Roman empire presided over by the cruel Nero. Kings in Science and Philosophy wield as real a sceptre as other sovereigns; and a reverent mind will I think hold them worthy of like homage. Profound, manly argument, the grip of a vigorous intellectual wrestler, none will object to, but mere ridicule of a great scientific doctrine seems to me only one remove above buffoonery. When mischievously inclined the thought has crossed my mind that those who indulge in such ridicule prove the Darwinian hypothesis in their own persons, viz., by an evident retrogression to the primordial type.

[c] Gen. i. 20.

infer that, on that day, these *genera*, Reptilia, Pisces, and Aves, were created.

Now how shall we conceive the act of creation? Three modes seem possible.

1. The Creative Power might fashion all the varied species of these *genera*, by *successive acts* of creation, one after the other. That Power might fashion a fish of one species; and, when this was finished, might advance to form another. In this way the Power might complete the whole work; and the thousands of years over which the creative act extended might be thus employed.

This is a possible mode of His working, but can any think that it is at all probable? Does it not tie the Creator down to those limitations in space and time from which we know He is exempt? Is it, in any sense, like His ordinary operations in our world? He works now by great central agencies. He does not hang out a gas-lamp in every parish, but He gives us the sun and moon. He does not paint a single flower, or ripen a single ear of corn, at once, but He carries forward these works, stage by stage, at one and the same moment, over the whole tract of a hemisphere. Can it then be thought that He departed from this universal rule when He created,—that then He moved along no general laws, but gave His attention to an individual structure? One who holds such an idea can, I think, have no worthy conception of the majesty and glory of the Creator. Shall we venture to conceive Him who spread out the heavens as a tent allowing His Creative Power to be taken up, for an appreciable time, only in making one fish? I hardly dare to frame such a thought.

Or if we say that the creative act fashioned, at one and the same moment, all these different species, and then left them to develop and propagate throughout the millions of years denoted by the epoch, this may get rid of the difficulty arising from succession in time, but it lands us in one still more formidable. For, in that case, we assume the Creative Power to have wrought only at the very beginning of the epoch; and to have rested during the mil-

lions of years it continued. But surely the Bible narrative tells us that the Creator did not rest until the seventh "day;" but that the work of creation went on during the six "days" without intermission. In some way then that creative act must have stretched over those six "days;" and these two possible hypotheses,—viz., successive and simultaneous creations,—we, I think, see to be untenable.

2. Can we think that the Creative Power fashioned all these different species by one act, and that this act stretched over the entire duration of the epoch? By this means we arrive at a mode of working on a scale more in accord with God's greatness, and, as we make the creative act continue throughout, we no longer suppose Him to have rested during this period. Taking then this hypothesis shall we hold that only one of a species was formed during this time, say, a whale? Then that one whale lived throughout the entire epoch, i.e. for millions of years! No argument can be needed to shew the absurdity of such a supposition.

3. Thus we reach the third possible hypothesis,—which is what we know as Evolution. This supposes the Creative act to have continued throughout the entire epoch, but to have stretched over the whole chain of life that was called into being during that period. That act ran through all the species and genera, but it dealt with all as a unity; the sublime Fiat came forth, and then, in obedience to it, the entire world of reptiles, fishes, and birds rose into existence. And I cannot but think that the writer of the Pentateuch knew, or at least surmised, this great generalization of modern science, that these three *genera* form but one organic unity[d].

If then we take the very words of the Bible, and try to conceive in logical fashion the operation they relate, we are, it seems to me, driven to the hypothesis of Evolution by that method alone.

[d] Dr. Samuel Kinns, author of "Moses and Geology," (Cassell and Co.), is stated to have shewn that Moses placed fifteen scientific events in correct order; and that, if he had no special knowledge, the chances against his being accurate were more than a billion to one!—"Record," June 8, 1883.

In this connection it is well for us to remember,—what both theologians and men of science often ignore,—viz., the scale on which our Bible is mainly written. Inattention to this one simple matter causes hundreds of mistakes. That scale is the dimensions of God's Being, the area His acts cover. All the words expressing what He is and does are sacred words; they are great with His immensity; to be rightly understood they must be set in the framework made by that immensity. They are to the speech of men indefinitely greater than the year made by the precession of the equinoxes is to our common year. All His times must be translated into the symbols of Eternity; all His thoughts must have assigned them an area commensurate with the infinity of space; all His actions are on the scale of the framework of the universe. It is a canon of interpretation given us by the prophet Isaiah: "As the heavens are higher than the earth so are . . . my thoughts than your thoughts," "saith the Lord." To remember this simple canon, and apply it to the whole Bible, makes the Sacred Volume display an intellectual majesty which wants no proof that it has been "given by inspiration of God." And then our difficulty as to Creation and Evolution is solved. For Creation is on the scale of God's Being; to God it was one Creative act, one sublime Fiat; but to us men,—shut up in small spaces, limited in our ideas, forced to creep over the ground by the relatively infantile methods that we call Science,—it resolves itself into—Evolution. Moses, authorised to use the royal terms suited to Deity, calls it "Creation;" Science, glorious and majestic, yet on the human scale, calls it "Evolution." But both mean the same thing. What is "Creation" in the Divine tongue is "Evolution" when expressed in earthly phrase.

Many are willing to accept Evolution as the mode of Creation, but they shrink from the bare possibility of allowing that there may have been no break between the inorganic and the organic, and,—worse still,—none between man's nearest progenitor and Man. The first of these concessions has been made in this volume; the

second could be made if science could justly ask it. To make these concessions, even for the sake of argument, seems to some to involve great danger. They appear to look upon it as the surrender of a principle which, once yielded, can never again be maintained. Such an idea proceeds, I think, on an entire misconception of the scientific position. Science is supposed to be a fixed and formulated thing; it is on the contrary an ethereal erection which exists only in scientific minds, which changes with the movements of those minds, which is indeed but living intellect, and hence has all the sensitiveness and tremulousness of life.

Science can advance to the exact and severe truth it finally reaches only by using hypotheses, which at first contain, sometimes, somewhat of error. Thus Copernicus disproved the geo-centric theory of the universe, but asserted that the planets moved *in circles* round the sun. This was very near the truth; and it was an hypothesis that rendered great service. But in due time it was slightly altered by Kepler, who demonstrated that they moved *in ellipses*. The like slight correction may be needed as to the hypothesis of Evolution. At present, Science inclines to regard it as one logical whole, without a single break from the nebulæ up to the highest man. That forms a complete and comprehensive theory, which has rendered, and is rendering, enormous service in chalking out the line of scientific advance. As such, it is convenient to hold to it. It forms the best working hypothesis of the universe,—the hypothesis which more completely explains the facts of the universe than any other yet propounded. But it may be that, as investigation proceeds, and more facts accumulate, it will be found necessary slightly to modify it,—to allow a few gaps in the great Evolution chain. But we may be sure that the loyalty of men of science to truth is such that, if the evidence fairly points to the existence of these gaps, it will be at once admitted. Nothing is more tremulous or sensitive than Science. The Stock Exchange is not nearly so sensitive to the movements of the political barometer as are

men of science to the discovery of a new fact. Newton's theory of gravitation would be modified at once if evidence were adduced that compelled it. And Evolution would share the same fate, if facts shewed that it did not universally hold good. Religious men lose nothing and imperil nothing by making these concessions to high scientific authorities; they are nothing more than expressions of the courtesy which ought to mark all religious men,—the mere politenesses of civilized life;—and if the concessions be found afterwards to have no just foundation, these same men of science will be the first to give back what has been gracefully yielded, and to say that the severities of truth no longer permit such an assumption to be made[e]. So acting, religious men only carry out the spirit of St. Paul when, confronted by the glories of Grecian sculpture on the Athenian Acropolis, he courteously admitted that man was the offspring of God, and that his genius proved him so to be, and, therefore, having this high lineage, it behoved them not to think that the Godhead was like anything they could fashion,—and as such inferior to themselves,—but that, rather, all visible nature was required as His expression, all the powers of heaven were under His control, and His loving rule extended over all the sons of men. In the same spirit of large and lofty wisdom, religious men should I think say to men of science;—"Your Science is exceeding magnifical, worthy to form a large part of the temple we build to the Lord God of hosts, and we read in its greatness that we are sons of God, nevertheless we ought not to think that it is any other than the earthly structure on which a spiritual and permanent erection is to be raised, or that the Godhead is like unto the Force whose move-

[e] The case of "Bathybius" is an instance in point. Professor Huxley had the courage,—and I honour him for it,—to express the opinion he honestly entertained that this sea-ooze was the raw material of life. Further research shewed him he was mistaken, and he has now had the higher courage,—for which I honour him more,—to confess that he was in error. This shews a union of courage and humility, and above all, of overmastering love of truth, which I cannot but think those theologians who ridicule him would do well to copy.

ments we can formulate, seeing that He is One from whom all Force and Mind and Motion come, and that He administers by natural law all the affairs of our world, and giveth to all life and breath and all things." And if there be this spirit in religious men, it will make them intellectually so great, spiritually so strong, that the concessions asked will appear in their intrinsic worth, and can readily be made.

As I ventured to point out to men of science that in despising or ignoring Theism they were doing injustice to their science, and permanently emasculating their scientific powers, so may I now also point out to men of religion that in despising or ignoring science in general, and Mr. Spencer's Philosophy in particular, they are none the less doing injustice to the faith they hold, and, if religious teachers, are rendering themselves too small for large and enduring work for Christ in the world. Much might be said on the value to theologians of the Spencerian Philosophy. Let me instance three of its aspects.

1. Thoroughly mastered it will, I think, give a more commanding grasp to the intellect than any other system which can be found in the world to-day. Unifying the universe, as it does, it presents areas of thought no where else to be seen,—at any rate not outside the pages of Revelation. For theologians to ignore or make light of this fact is simply fatuous,—a philosopher whose works are held in esteem over the civilized globe must be a man of commanding greatness. This may also be inferred from the character of the arguments put forth by all Christendom against him. For twenty years his system has confronted our Theism as a formidable enemy, and it may, I should fancy, be assumed, that all the Professors of philosophy in all the universities of Christendom have had free scope, and have done what they could to disprove his arguments. Yet, from some fair acquaintance with their writings, I venture to say that they have contributed nothing of any importance, and that they might just as well have been silent. To some extent this also

includes the leading divines in Christendom[f]. Certainly not one has shewn anything approaching the grasp and power Mr. Spencer manifests. For refined and exact scholarship, *in some departments*, these divines may stand unrivalled, but—for what seems to me of much higher value—for fashioning a strong and majestic intellect, which can rove at will over all departments of thought, and find no area too great for it to grasp, no burden too heavy for it to carry, Mr. Spencer's Philosophy seems worth all the teaching of all the universities combined. The greatest men the universities have fashioned have come out against him, only to make evident at a glance the utter disproportion between the two.

Teachers of religion then, who hold it of importance to command intellectual respect, must not despise or neglect this Philosophy. If they do so, they will find that the youths of their congregations are becoming intellectually more powerful than they. Occasionally, when listening to some of the ablest preachers of Christendom, I have clothed myself for a time in the armour of an Agnostic, and considered what such a one would say in reply to the preacher's arguments, and how he would outflank the preacher's greatest statements by a larger generalization. The conclusion I reach is that, at present, there is no prominent divine throughout Christendom who has yet shewn himself to possess that calibre, grasp, extent and accuracy of information which are needed to fashion a bolt that would pierce such an Agnostic's armour[g]. Yet a youth

[f] This must only be understood as implying that, in my judgment, these divines have made no clear breach in any of Mr. Spencer's *structural principles*. On some relatively unimportant points they may have shewn him deficient. No wise general however is satisfied with dismounting a cannon here and there, and he will certainly not claim that as a victory; but he never rests content until all his adversary's greater fortresses are fairly shattered, and that, it is a matter of common notoriety, is not the case with Mr. Spencer's works.

[g] We saw, I think, in chapter iv., p. 35, that Dr. Martineau is incompetent for such a task. Yet he was purposely selected as distinctly the most formidable antagonist Christendom had yet sent against Mr. Spencer. Out of courtesy I prefer to mention no other names, but it would be easy to shew that all others who have entered the lists are relatively weak.

of eighteen or twenty might wear that armour. I know some not much older who are wearing it. They are refined and elevated in life and tone, but Theism has lost its hold over them. If the present state of thought in the higher intellectual ranges is allowed to continue in our nation for twenty years longer I venture to predict that the bulk of the largest and strongest intellects will have thrown off the Theistic faith[h].

This seems to me a terrible state of affairs. If religious teachers cannot command intellectual respect they will soon lose every other kind of respect. Goodness will not bow if reason cannot subdue.

The universities have indeed no one who can put forward any just claims to be considered a powerful philosopher. And a philosopher who is not powerful is of no practical use. Philosophy, as we saw, is the unification of all science,—it takes up each single science *en bloc*, and uses it as one stone to build up its intellectual structures. Manifestly for this work the greatest mental strength is essential, and one who has not this,—one who does not possess a commanding grasp,—can never be a philosopher. He may tabulate philosophical systems, but he will never understand them, and he only makes dry and wearisome what is really divine Philosophy. And being small himself he can never make great men, can never contribute anything to make men great. For years past the universities have had no philosopher; therefore they have been utterly unable to cope with a man like Mr. Spencer.

This matter is of very grave importance, for another reason. The tendency of all science, and indeed of all human industry, is to specialize—to confine men to particular small departments. This tends to make them exact, but also to make them narrow. And all that is narrow is

[h] In some of the great industrial centres Agnostics abound amongst the finer types of young men. The "Athenæum" lately contained a statement that Mr. Spencer is called the "Archbishop of Bradford." Birmingham also has established a "Sociological section" for the study of his philosophy, in connection with the "Natural History and Microscopical Society."—"Athenæum," May 5, p. 574.

the deadly foe of Religion. God is no specialist. His works are not to be understood on the small scale. Narrow views necessarily lead to scepticism and infidelity: broad and lofty views are alone great enough for Religion. Religious men then should pay special attention to securing those who can fashion these broad generalizations, and such I venture to say can be moulded by Philosophy only.

2. Mr. Spencer's system seems to me of great value also in that it reveals as structural in the universe, and especially in our own natures, not a few of the cardinal doctrines of Religion. That system we have seen covers over the universe. Now must it not be certain that the God of Revelation has left His intellectual impress in that universe? We have seen I think from this volume how many of His *moral* characteristics may be read in the universe. But a more delicate investigation than this opens up before us, and that is how far His *mental* character—the distinctive doctrines of the Christian Revelation—may be read in it. So far as I know, no one has yet entered on this region. Yet some Bible truths are plainly apparent. "God so loved the world, that He gave His only-begotten Son, that whosoever believeth in Him should not perish, but have everlasting life;"—seems to me a truth written athwart the whole face of creation—a Divine Cartoon whereof all organic life is the canvas. Justification by Faith might I think be read therein. Most plainly may be seen smaller statements. "Whatsoever a man soweth that shall he also reap," is Science just as much as it is Scripture. Some of the laws of Biology we saw are distinct adumbrations of statements by our Lord. At present, it may be, these may seem to be fanciful, and mere guesses, but, when the region is fairly explored, I cannot but think that Science will give a complete reflection of Revelation; and that the heaven which the latter reveals will also be seen mirrored in the clear depths of the former.

It can hardly be necessary to shew the importance of this to theologians. To make evident that Science urges

in the same direction as Revelation is surely of vast moment.

3. Of no less value is the power possessed by this Philosophy in giving joyous and hopeful views of life, and in sustaining us on the elevations of a calm, clear faith. It makes evident that Right is so deeply embedded in the structure of the universe, and is so clearly the all-conquering power, that its absolute dominion over all is only a question of time. It shews how certain is our Lord's final triumph, and how every great event speeds on His chariot wheels. It gives to the as yet unfulfilled prophecies of Isaiah the quiet certainty of a great law of nature. Thus it once more unifies Reason and Faith, shewing that the highest truths which Faith is called on to believe are only the loftier ranges of an ascent up which Reason can surely climb. Thus the two parts of our nature go hand in hand, ever coming nearer to the unclouded glory.

And if religious men, especially religious teachers, will act on the suggestions here thrown out, and will so master this system as to incarnate it within themselves, as a great Theistic philosophy, they will, I feel sure, discover the reason why it has been sent, and what is Christ's purpose in allowing it to appear so great. For let us remember that Mr. Spencer is only an instrument grasped by Christ's mighty hand,—an instrument of honour, I think, and it would not surprise me to learn that he, with Mr. Darwin, is regarded by our Lord as he regarded Cyrus, the needed agent for the building of the second Temple,—and that, as such, his system represents some vast idea which Christ intends to make structural in His Church. As then it is calculated to call up a range, a breadth, a calibre hardly before known, can we be wrong in inferring that Christ means to employ it for fashioning a more powerful race of spiritual warriors than we have yet seen, at any rate since Apostolic times? It seems to me that our Lord is intent on vaster and wider movements in our world, that He in consequence, is needing greater vessels in which His Spirit can dwell, and that He may be bent on arousing and

equipping the last army, who shall in His name attack all the chief world strongholds, and set up His Kingdom over the whole earth. When the best men in Christendom shall grow great enough for Christ's needs, and shall thus, within their enlarged natures, afford an adequate expression of the life of Christ, I cannot but think that the weary war of eighteen centuries will be found drawing to a close, and that the army of light will henceforth roll on, in one uninterrupted tide of conquest, until the great work has been accomplished, and the cry goes up, "Hallelujah, hallelujah, the Lord God Omnipotent reigneth." The "Head over all things to His Church" is intent on her glorification.

"Though with a scornful wonder
Men see her sore opprest,
By schisms rent asunder,
By heresies distrest,
Yet saints their watch are keeping,
Their cry goes up, 'How long?'
And soon the night of weeping
Shall be the morn of song.

"'Mid toil, and tribulation,
And tumult of her war,
She waits the consummation
Of peace for evermore;
Till with the vision glorious
Her longing eyes are blest,
And the great Church victorious
Shall be the Church at rest."

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"It remains only to notice a very remarkable chapter on the 'Place and Power of Prayer,' and perhaps this contains the finest writing in the book, and most worthy of the subject, if indeed prayer can be explained or written about in any better language than in the simple words of Montgomery's well-known hymn. A real prayer is compared to a 'noble piece of music,' which

'contains perhaps a thousand different sounds, all finely graduated and harmonised, and as the cadences fall upon the ear, we are conscious of beholding infinite scenes where all is life and motion; we are conscious moreover that the music has a greatness and sweetness beyond itself—it suggests a higher region than it can reach. True prayer, a man's spirit getting nearer to God, will have all these delicate and subtle cadences, those infinite changes, that musical painting, that light and shade . . . .;' but the reader must get the book and finish the passage for himself. There are also in this chapter, which does not close the volume, some very suggestive thoughts as to the moral strength and spiritual training, independent of the spiritual blessing it calls down, which true prayer must exercise and enlarge in the Christian. On the whole the book is the most striking that has been given to the Christian world of late years on the side of spiritual religion. It gathers into it many characteristics of different modes of thought and blends them into one. No modern invention or discovery but lends some illustration or points some thought. It has the mysticism of Germany combined with the strong individual thought of English dissent. It possesses the freedom and brightness of the best side of Transatlantic piety, with no want of refinement or reverence, and the language in which all is clothed is new also in religious writings—it is certainly, whether for better or worse, the language of the most advanced school of modern culture. But it is a book which should only be read in the early morning, when the soul is fresh and able to rise to its call, for there are times when such a volume would be thrown down in impatience and distaste. It is written with the same feeling which one has in climbing a mountain, and the reader must gird himself to follow."

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The First Edition has long been exhausted, and a Second Edition may in due time be prepared.

The following also are projected.

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It must be evident that the real value of any book of importance is the amount or area of fresh *thought* that it contains. That represents its real contribution to the world's mental wealth. It must be equally evident, to all men of good intelligence, that not a few books, perhaps the great majority, contain comparatively little thought, and are only made to appear as if they did by the use of an involved and high-sounding phraseology, which, when examined, is found to have but a very thin staple behind it. Whilst on the other hand works of sterling merit, works in which thought is massed in golden ingots, are not unfrequently despised, because the writers dare to be simple, and to talk sound sense in an honest English fashion. Manifestly then it is for the interest of literature, and of the whole race, that these bubbles should be pricked, and that each man's thought should shew its very form and feature. Those writers who use many words and pages to set out what all might understand in a few sentences are guilty of obtaining credit under false pretences, and honest men ought to combine, I think, to send them to some literary treadmill. What is false in any department of life ought not to be tolerated. A falsehood, especially in literary canons and standards, is not less than a poison put into the wells from whence a whole nation is drinking. We want therefore some sure test of intellectual greatness,—we want something which will disregard verbiage, and give credit only for the *residuum* of real thought which the words contain.

It seems to me this can best be gained by the severe methods of science. A delicate needle pointing to a figure is incapable of being influenced by that unjust bias, which some who sit in the critic's judgment-seat display. Man does not blush to utter a falsehood, if only it be carefully concealed, but a little piece of steel is true to its Maker, and it scorns to register what is false.

All able critics will be conscious that when reading a really great and good book an inspiring, exhilarating influence is felt somewhat like breathing mountain air. Whatever is really great refreshes the springs of life. An unseen vital force somehow enters from it into us. This I am sure is the conscious experience of thousands. But Mr. Spencer's Philosophy we have seen

shews us that all thought is the correlative of nerve-waves. This inspiring, enlarging influence must therefore shew itself in the nerve-waves. Now these nerve-waves have weight and momentum; with instruments of sufficient delicacy they may be weighed and measured, and by this means we attain a scientific measurement of the thought of which they are the correlatives. Such a measurement I think I have now gained.

It is manifest I think that such an exact and unerring standard would be of great literary value. Doubtless mere pretenders in literature would dislike or despise it, but all who are concerned to maintain the high tone of our great English classics, and to carry on our mental structures to a yet worthier elevation, will I think see its value. It would point out in fact the path to mental greatness,—would shew us the road along which such greatness lies. It would give scientific precision to those canons which are now at the mercy of each individual critic. Gold-leaf though spread over never so large a surface would be estimated at its exact weight and no more; solid ingots of gold, close packed, would be proved far to outweigh the other: wind-bags would be pricked, and made to shrink to their rightful size; structures of granite would be shewn to defy any further compression.

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